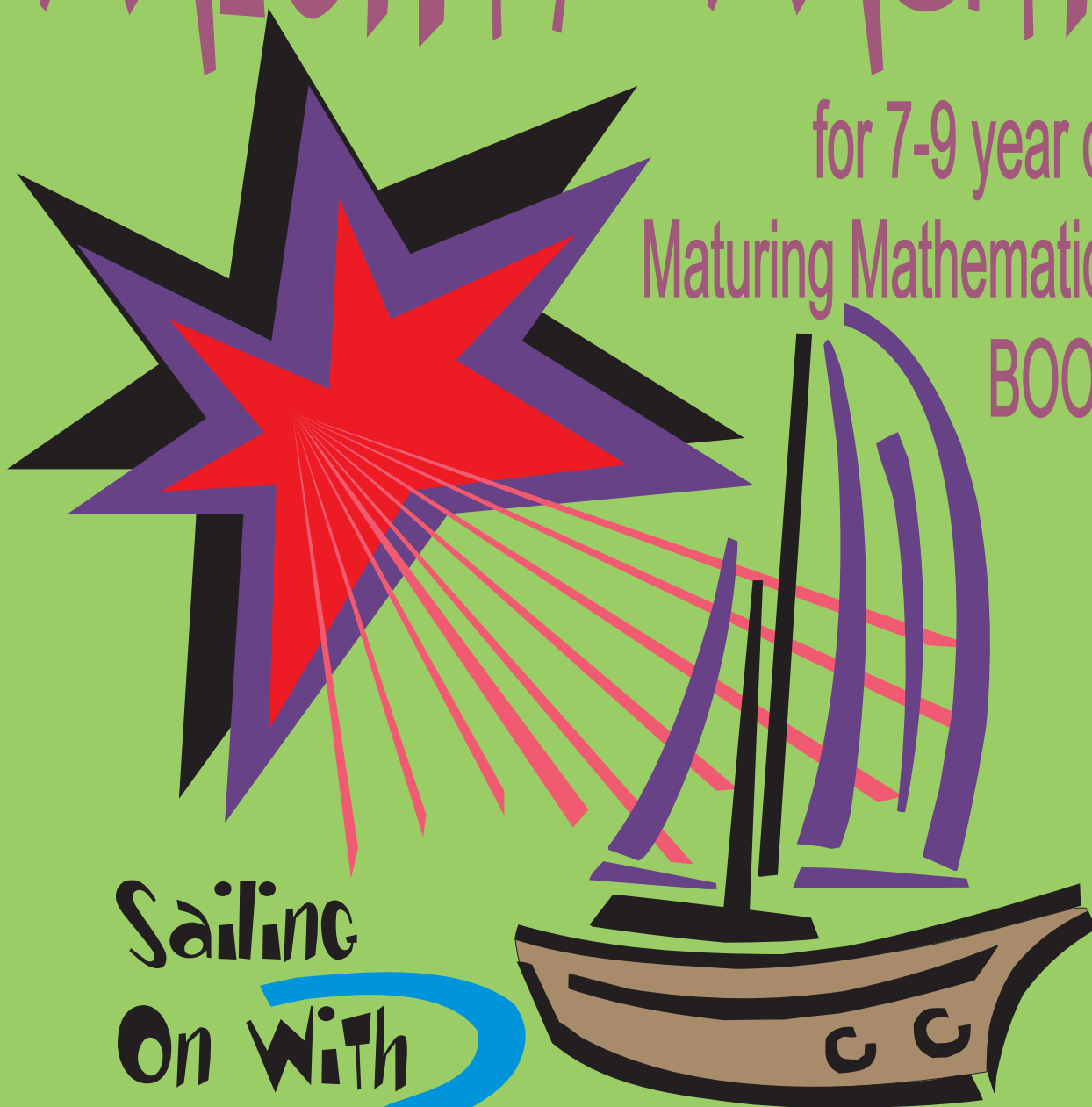


Mighty Math

for 7-9 year olds

Maturing Mathematician

BOOK 2



Sailing
On With

Mathematics

Kim Freeman

NIGHTY MATH

for 7-9 year olds

Maturing Mathematician

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Sailing
On With

MATHEMATICS

Kim Freeman

Mighty Math Maturing Mathematician Book 2, Sailing On With Mathematics
Author, K. Freeman

eBook Version First Published in 2007 by:
Mahobe Resources (NZ) Ltd
P.O. Box 109-760
Newmarket, Auckland
New Zealand.

www.mahobe.com

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ISBN10: 1877216887
ISBN13: 9781877216886

HOW CAN YOU HELP YOUR CHILD IN MATHEMATICS?

Mastering mathematics is essential for future opportunities in school and careers. Your children need to reach a certain level of competency in mathematics to be able to progress in many advanced high-school courses, and then to have a wider variety of career choices. Doing mathematics homework reinforces all the skills being learnt in class. The more time children spend practising their skills, the sooner they will develop confidence in their abilities. However don't just give this book to your children and expect them to learn by themselves. Any activity is fun when done with others or when there is reinforcement and encouragement. Praise and attention to what they are doing will help towards getting them to sit down to learn next time.

This green Mighty Maths series, *Maturing Mathematician*, reinforces and continues on with the work covered in the previous Mighty Maths series (*Beginning Mathematician*, *Developing Mathematician* and *Advancing Mathematician*). The work is progressively more challenging and new concepts are introduced in each book at various points. To help reinforce mathematical skills as well as to maintain motivation, the same type of question is asked in different ways and contexts.

This specific book covers number sequences, numbers greater than 100, arithmetic strategies, adding and subtracting with carrying, measurement and fractions.

For best results:

- Make sure your children understand the different concepts. Mathematics is not just a meaningless mental exercise of memorizing rules and doing rote drills. Making mathematics part of their daily lives will make it more meaningful. For example, ask them to space new plants a certain distance apart in the garden, double a recipe or pay bills in stores.
- Help them to master the basic facts and learn the vocabulary of mathematics. By now, your children should be competent in the multiplication tables, and simple arithmetic. Having these basic skills and being able to understand the vocabulary means that they can move up to a higher level of learning. If they have not mastered these, use flash cards and drills to help them learn.
- Encourage your children to write neatly. Many errors in solving mathematics problems can be traced back to sloppy number writing.
- Provide help immediately when needed. Mathematics is a subject in which everything builds upon what has been previously learned. For example, a failure to understand fractions and decimals will lead to problems with percentages.

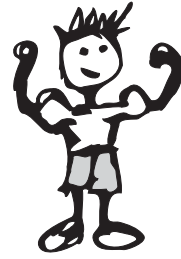
We hope that you and your children have fun with Mighty Maths. At Mahobe, we certainly had fun putting it all together for you.

POSITION

Label with the correct terms.

heavier

lighter



.....

.....

empty

full



.....

.....

tall

short

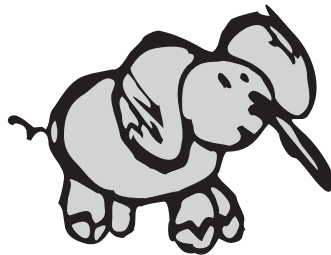


.....

.....

large

small



.....

.....



.....

fast

slow



.....



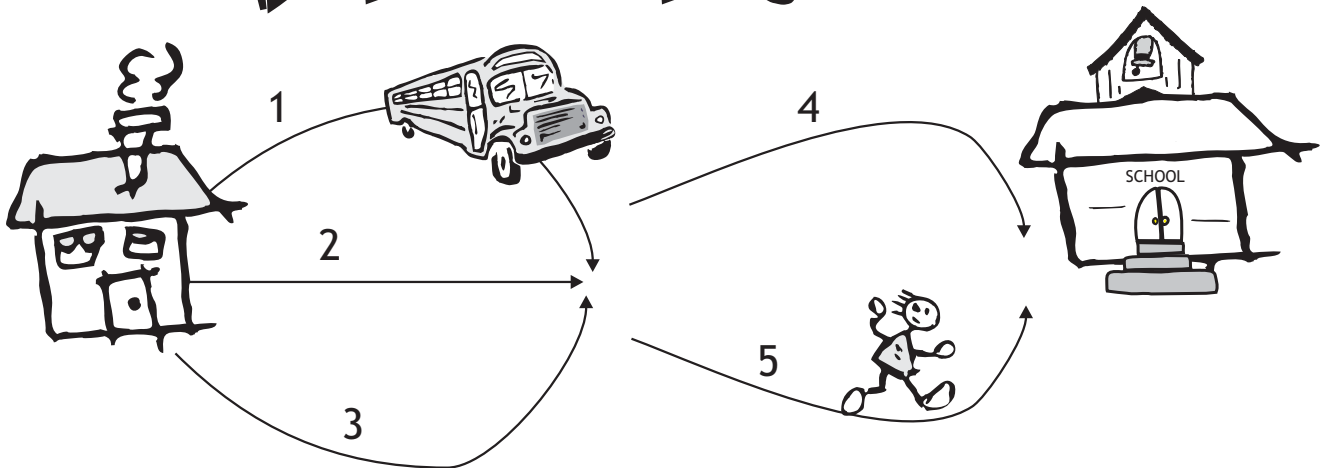
.....



on above beside

.....

COMBINATIONS



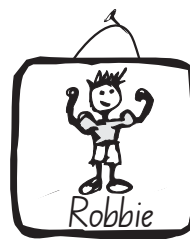
There are 5 roads that lead to school. List all the different combinations of routes that can be taken.

1, 4

.....

.....

.....



List the ways in which you can hang the photos

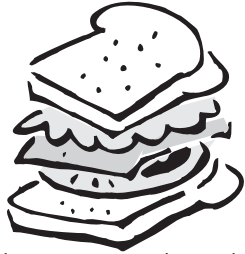
Celine Ryan Robbie

.....

.....

MORE COMBINATIONS

Choose 1 sandwich and 1 kind of fruit.
List the different combinations.



ham sandwich



banana



apple



salad sandwich



orange

.....

.....

.....

.....

.....

Three numbers are purchased for the mail box. What are the different three digit numbers that can be produced from 2, 5 and 8?

.....

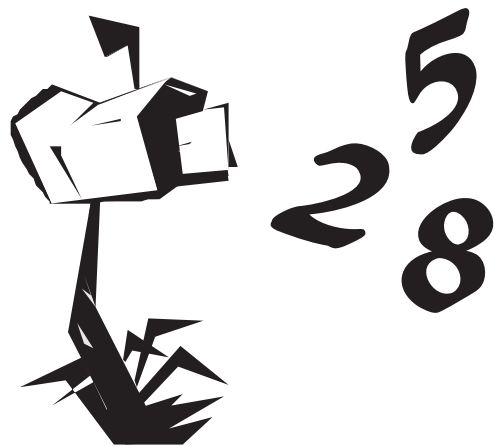
.....

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NUMBER SERIES

Write the largest and smallest numbers that can be formed from these digits. (Repetition of digits is not allowed.)

	<i>Largest</i>	<i>Smallest</i>
4 2	□ □ □	□ □ □
7 4 5	□ □ □	□ □ □
8 0 2	□ □ □	□ □ □
3 9 6	□ □ □	□ □ □

Complete each number series below.

705,, 703,, 701,,

210, 212,,, 218,,

.....,,, 450, 455, 460,

880,, 860,,,,

NUMBER SERIES



Arrange these numbers in ascending order.

Ascending order means smallest to biggest.

246

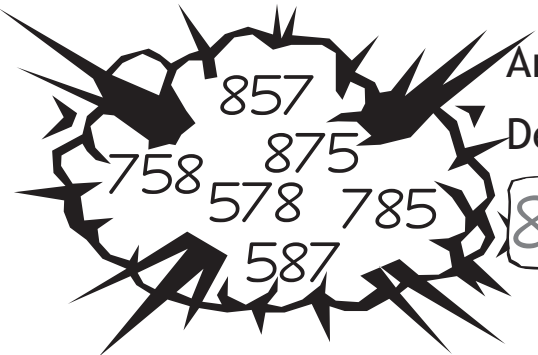
105



Arrange these numbers in descending order.

Descending order means biggest to smallest.

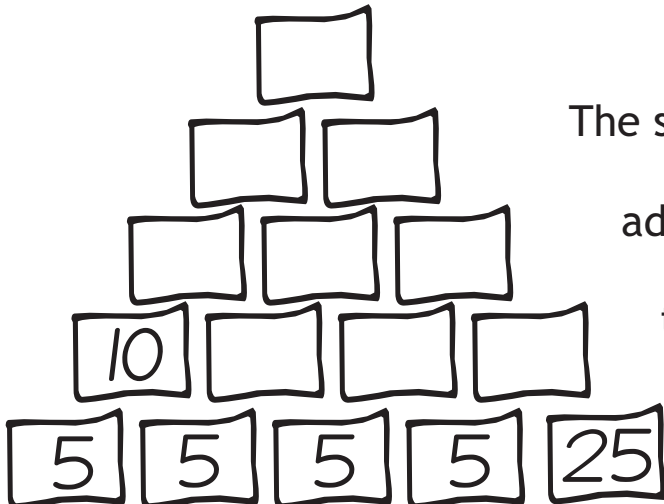
875



652



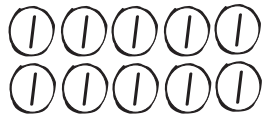
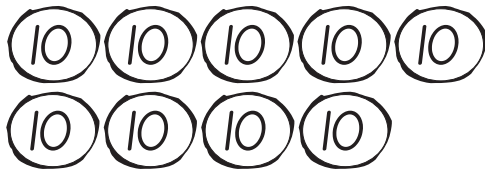
Complete the calculations.



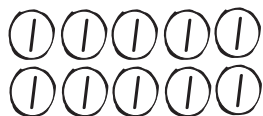
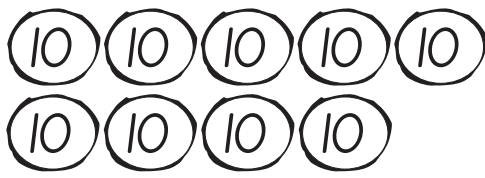
The sum of any two adjacent numbers is the number directly above.

ADDITION


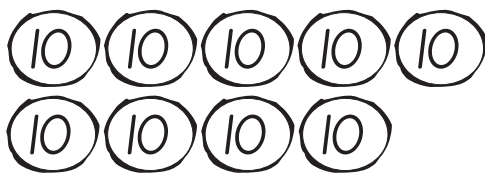
Shade the circles that represent the number 57 then give the answer.


$$57 + \dots = 100$$


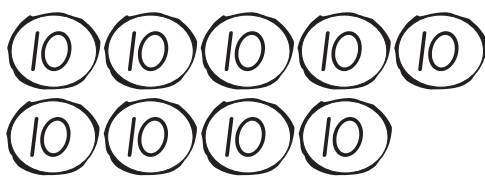
Shade the circles that represent the number 73 then give the answer.


$$73 + \dots = 100$$

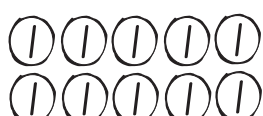
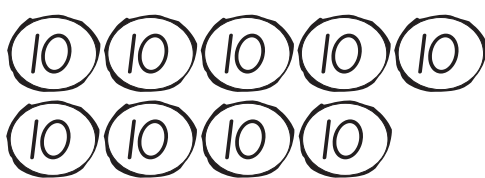
Shade the circles that represent the number 68 then give the answer.


$$68 + \dots = 100$$

Shade the circles that represent the number 34 then give the answer.


$$34 + \dots = 100$$

Shade the circles that represent the number 29 then give the answer.


$$29 + \dots = 100$$

Shade the circles that represent the number 45 then give the answer.

45 + = 100

Shade the circles that represent the number 50 then give the answer.

50 + = 100

Complete these sums.

$$40 + \dots = 100 \qquad 32 + \dots = 100$$

$$30 + \dots = 100 \qquad 85 + \dots = 100$$

$$50 + \dots = 100 \qquad 3 + \dots = 100$$

$$70 + \dots = 100 \qquad 7 + \dots = 100$$

$$1 + \dots = 100 \qquad 4 + \dots = 100$$

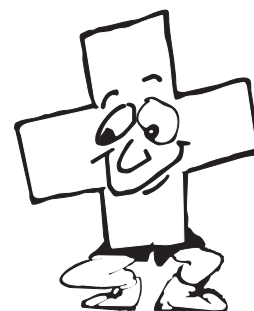
$$2 + \dots = 100 \qquad 23 + \dots = 100$$

$$5 + \dots = 100 \qquad 67 + \dots = 100$$

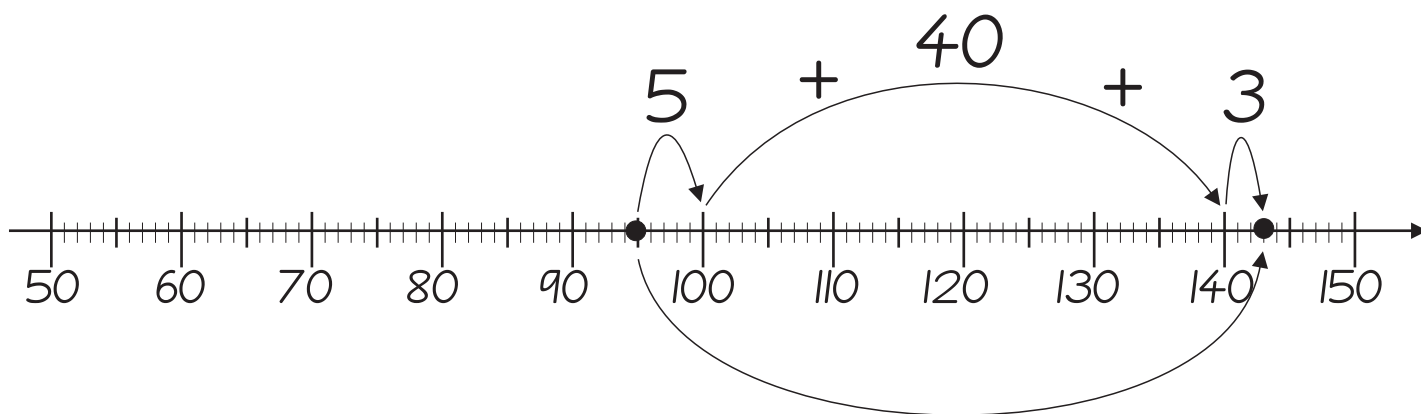
$$51 + \dots = 100 \qquad 54 + \dots = 100$$

ARITHMETIC STRATEGIES

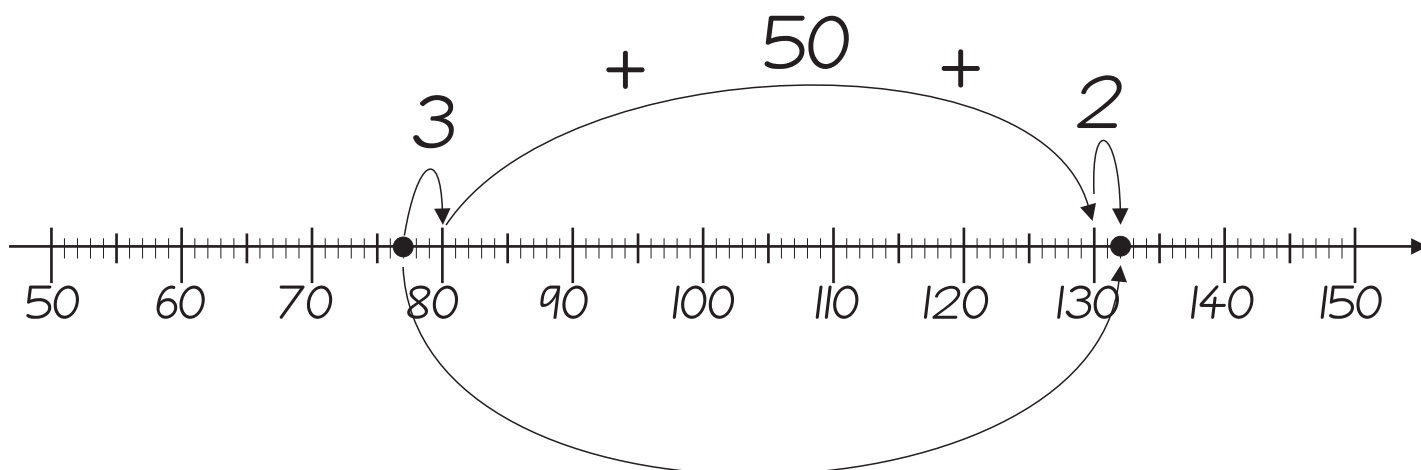
Look at how this strategy uses the number line.



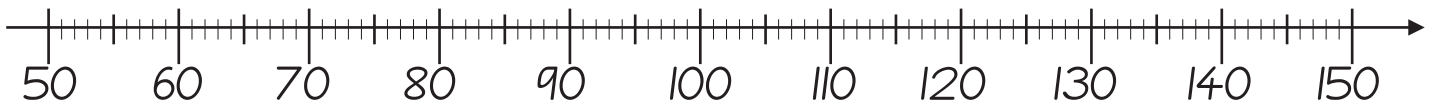
$$95 + 48 = \underline{143}$$



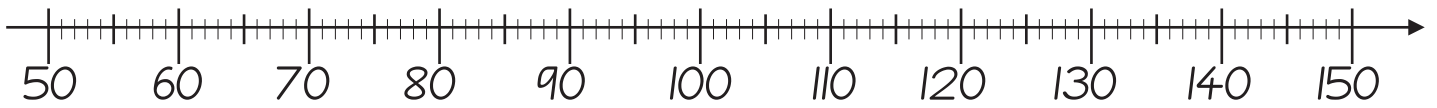
$$77 + 55 = \underline{132}$$



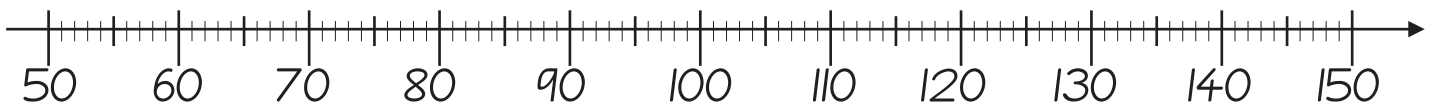
Use the number lines to calculate these additions.



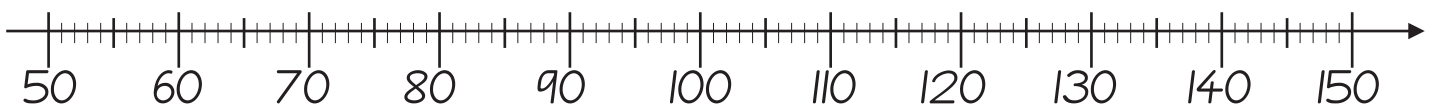
$$55 + 58 = \dots\dots\dots$$



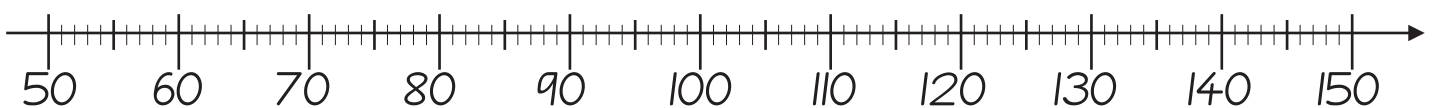
$$96 + 39 = \dots\dots\dots$$



$$78 + 66 = \dots\dots\dots$$



$$66 + 56 = \dots\dots\dots$$



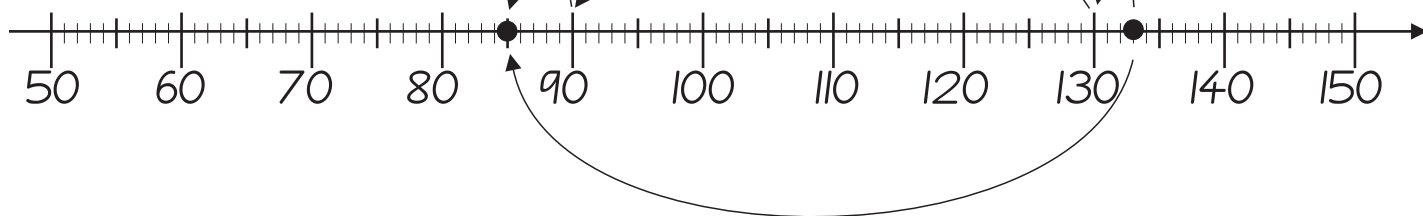
$$87 + 44 = \dots\dots\dots$$

ARITHMETIC STRATEGIES

Look at how this strategy uses the number line.

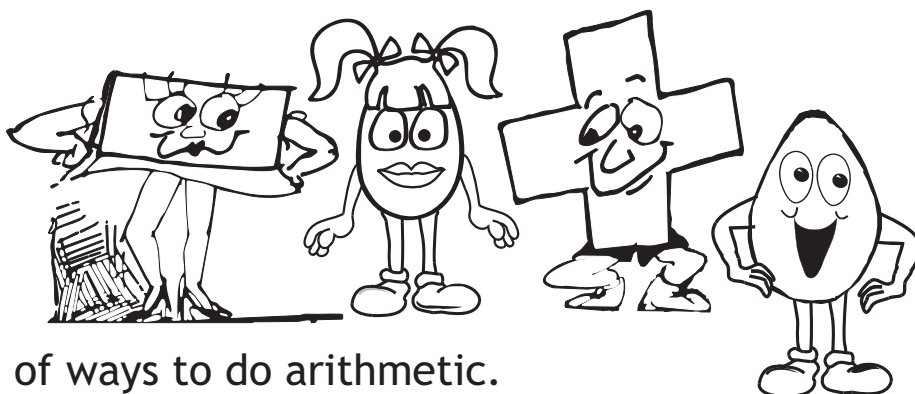
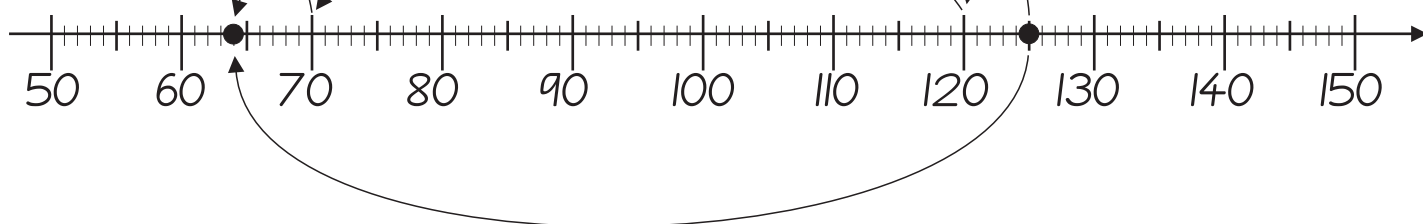
$$133 - 48 = \underline{85}$$

$$5 + 40 + 3 = 48$$



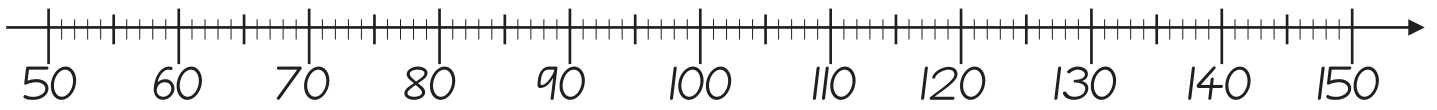
$$125 - 61 = \underline{64}$$

$$6 + 50 + 5 = 61$$

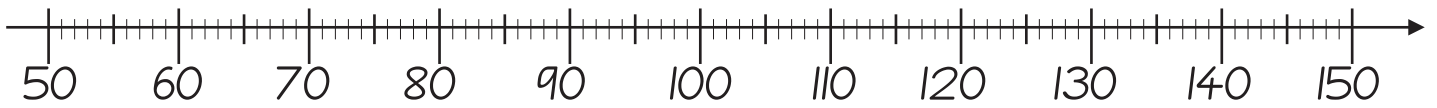


There are all sorts of ways to do arithmetic.

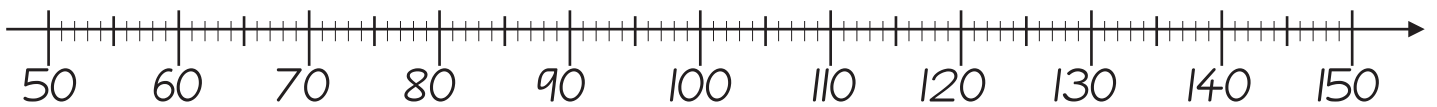
Use the number lines to calculate these subtractions.



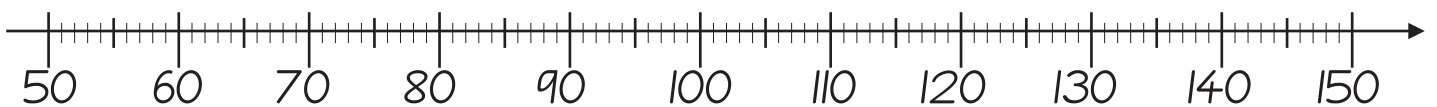
$$145 - 56 = \dots\dots\dots$$



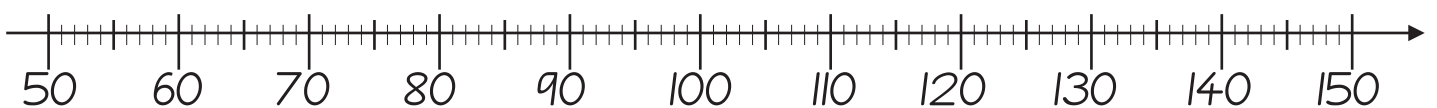
$$108 - 41 = \dots\dots\dots$$



$$126 - 68 = \dots\dots\dots$$



$$149 - 55 = \dots\dots\dots$$



$$132 - 67 = \dots\dots\dots$$

PLACE VALUE

The value of the digit 8 in the number 483 is

The value of the digit 2 in the number 852 is

The value of the digit 5 in the number 591 is

The value of the digit 0 in the number 307 is

The value of the digit 7 in the number 740 is

Write these numbers in the correct order.

316 313 315 312 314

.....

561 560 577 578 579

.....

850 853 849 851 852

.....

MIGHTY MATHS

$249 + 1 = \dots\dots\dots$

$299 + 1 = \dots\dots\dots$

$329 + 10 = \dots\dots\dots$

$150 - 3 = \dots\dots\dots$

$581 - \dots\dots\dots = 579$

$578 - \dots\dots\dots = 568$

$389 + 1 = \dots\dots\dots$

$546 + 10 = \dots\dots\dots$

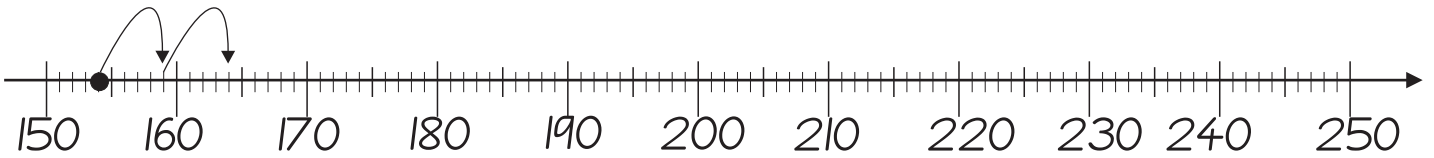
$161 + 10 = \dots\dots\dots$

$214 - 10 = \dots\dots\dots$

$\dots\dots\dots - 2 = 129$

$\dots\dots\dots - 10 = 236$

Start at the dot and continue to add 5 to each number



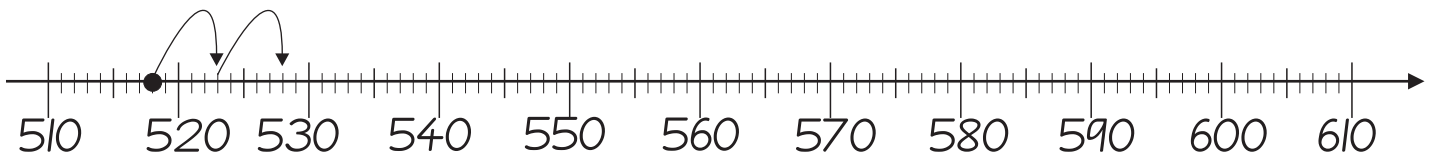
154, 159,

.....



277, 282,

.....

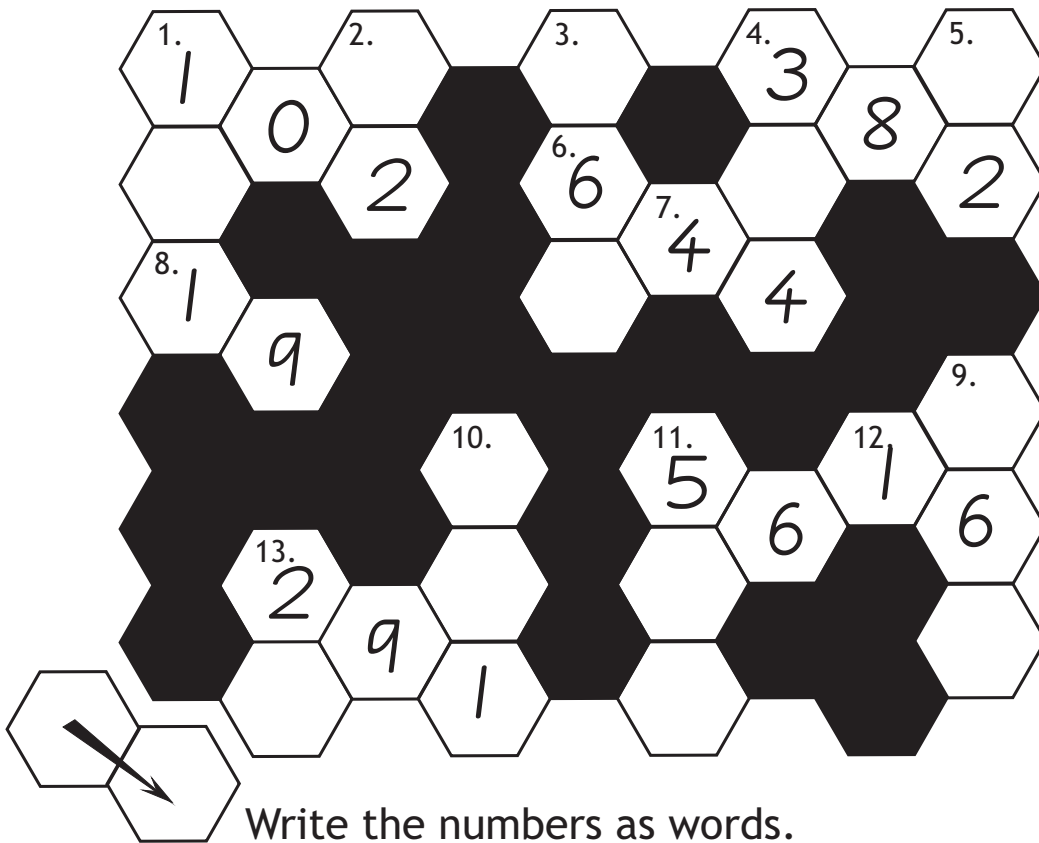


518, 523,

.....

Write these numbers into the hexanumber.

1. *one hundred and eleven*
2. *twelve*
3. *four hundred and sixty seven*
4. *three hundred and twenty four*
5. *thirty two*
9. *nine hundred and sixty six*
10. *three hundred and one*
11. *five hundred and seven*
13. *twenty two*



Write the numbers as words.

1. *one hundred and two* 4.
6. 8.
11. 12.
13.

SEQUENCES

Increase / decrease by 1 to finish each sequence.

315,, 317,,,, 321, 322,,

567,,,, 571, 572,,,,

....., 720, 719, 718,,,,,, 712

902, 901,,,,,,,, 893

Increase / decrease by 2 to finish each sequence.

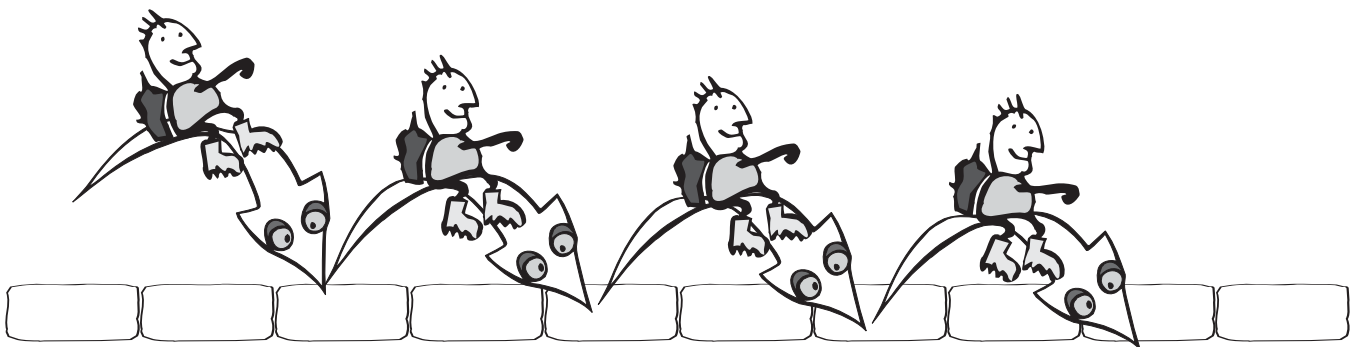
210, 212,,,,,,,,

832, 834,,,,,,,,

500,,,,, 510,,,,

720, 718, 716,,,,,,,

680, 678, 676,,,,,,,



SEQUENCES

Increase / decrease by 5 to finish each sequence.

125, 130,,,,,,,,

650, 655,, 665,,, 680,,,

104, 109, 114, 119, 124,,,,,

320,,, 305, 300, 295,,,,

.....,,,,, 180, 175, 170, 165, 160

Increase / decrease by 10 to finish each sequence.

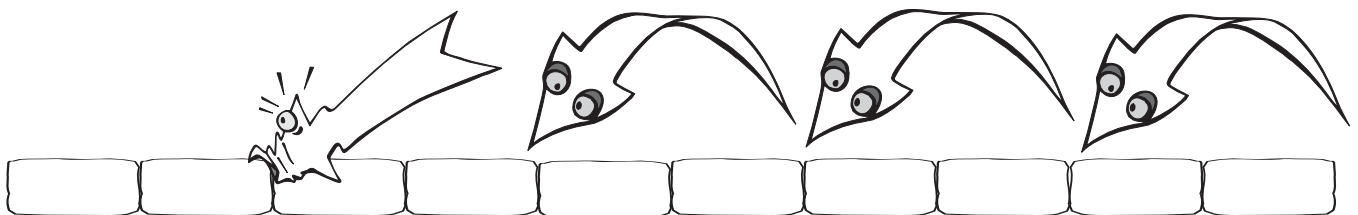
211, 221,, 241,, 261,, 281,,

555, 565,,, 595,,, 625,,

707, 717,,, 747,,, 777,,

990, 980, 970,,,,,,, 900

455, 445, 435,,,, 395, 385,,



SEQUENCES

Write the numbers in ascending order.
 (Ascending order means smallest to biggest.)

235 204
 228 213

449
 420 481
 403

811
 825 820
 803
 838

.....

Write the largest and smallest numbers that can be formed from each of these digits.

1 6
 4

2 5
 8

3
 7 9

0
 8 2

.....

The number that comes just before 500 is

The number that comes just after 789 is

The numbers between 268 and 271 are and

632 Cross out the numbers greater than the one in the circle.

705 142 534 641 811 448

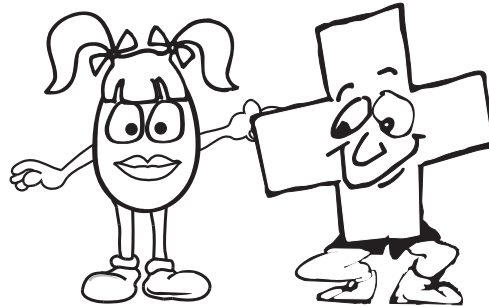
ADDITION WITH CARRYING

Positive Pete is here with Alicia Addison to show you how to add with carrying

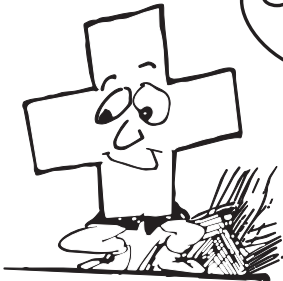
Step 1.

$$\begin{array}{r} 47 \\ +25 \\ \hline 2 \end{array}$$

$7 + 5 = 12$
(1 ten plus 2 ones)



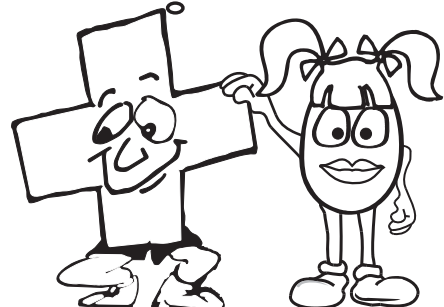
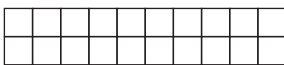
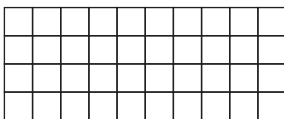
Put the 1 ten
in the tens column.



Step 2.

$$\begin{array}{r} 47 \\ +25 \\ \hline 72 \end{array}$$

$4 + 2 + 1 = 7(\text{tens})$

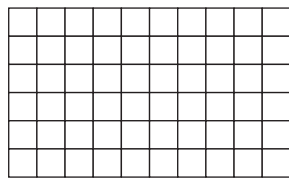
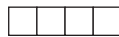
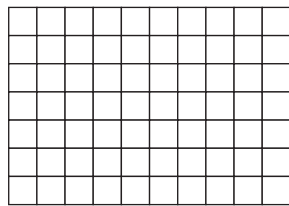
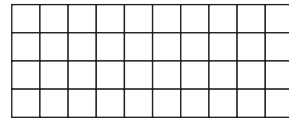
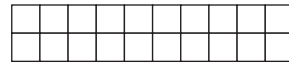


$$\begin{array}{r}
 26 \\
 + 48 \\
 \hline
 74
 \end{array}$$

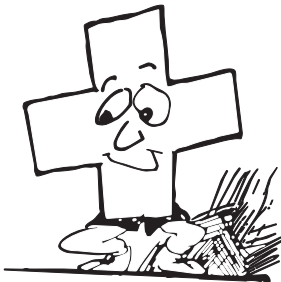
$$\begin{array}{l}
 6 + 8 = 14 \\
 (4 \text{ ones, } 1 \text{ ten})
 \end{array}$$

$$2 + 4 + 1 = 7$$

$$2(\text{tens}) + 4(\text{tens}) + 1(\text{ten}) = 7(\text{tens})$$



0
0
0

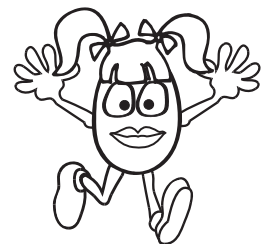


$$\begin{array}{r}
 74 \\
 + 69 \\
 \hline
 143
 \end{array}$$

$$\begin{array}{l}
 4 + 9 = 13 \\
 (3 \text{ ones, } 1 \text{ ten})
 \end{array}$$

$$7 + 6 + 1 = 14$$

$$7(\text{tens}) + 6(\text{tens}) + 1(\text{ten}) = 14(\text{tens})$$



Alicia Addison is now off to try some addition for herself.

ADDITION

1

$$\begin{array}{r} 8 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 28 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ + 7 \\ \hline \end{array}$$

2

$$\begin{array}{r} 6 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 26 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 86 \\ + 9 \\ \hline \end{array}$$

3

$$\begin{array}{r} 23 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ + 18 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ + 58 \\ \hline \end{array}$$

4

$$\begin{array}{r} 26 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ + 16 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ + 26 \\ \hline \end{array}$$

$$\begin{array}{r} 76 \\ + 36 \\ \hline \end{array}$$

5

$$\begin{array}{r} 24 \\ + 18 \\ \hline \end{array}$$

$$\begin{array}{r} 64 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 84 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 94 \\ + 38 \\ \hline \end{array}$$

ADDITION

1 24 36 48 47 56
+ 27 + 26 + 25 + 37 + 39

2 38 66 52 46 49
+ 47 + 19 + 33 + 39 + 36

3 83 74 65 76 98
+ 37 + 56 + 75 + 74 + 62

4 55 66 77 88 99
+ 22 + 33 + 44 + 55 + 66

5 54 65 76 87 98
+ 45 + 56 + 67 + 78 + 89

6 49 55 68 75 94
+ 62 + 67 + 65 + 69 + 61

..... LEVEL 1

$$\begin{array}{r} 28 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 57 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ + 6 \\ \hline \end{array}$$



You have 10 minutes

$$\begin{array}{r} 71 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ + 30 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ + 80 \\ \hline \end{array}$$

..... LEVEL 2

$$\begin{array}{r} 26 \\ + 29 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ + 38 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ + 47 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ + 68 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 29 \\ + 44 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ + 39 \\ \hline \end{array}$$

$$\begin{array}{r} 27 \\ + 53 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ + 29 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ + 39 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 35 \\ + 26 \\ \hline \end{array}$$

LEVEL 3

$$\begin{array}{r} 87 \\ + 57 \\ \hline \end{array} \quad \begin{array}{r} 74 \\ + 27 \\ \hline \end{array} \quad \begin{array}{r} 55 \\ + 68 \\ \hline \end{array} \quad \begin{array}{r} 92 \\ + 65 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ + 55 \\ \hline \end{array} \quad \begin{array}{r} 78 \\ + 44 \\ \hline \end{array} \quad \begin{array}{r} 29 \\ + 93 \\ \hline \end{array} \quad \begin{array}{r} 65 \\ + 38 \\ \hline \end{array}$$

LEVEL 4

$$\begin{array}{r} 127 \\ + 53 \\ \hline \end{array} \quad \begin{array}{r} 219 \\ + 74 \\ \hline \end{array} \quad \begin{array}{r} 246 \\ + 49 \\ \hline \end{array} \quad \begin{array}{r} 165 \\ + 28 \\ \hline \end{array}$$

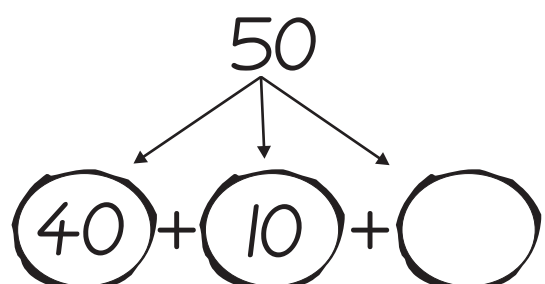
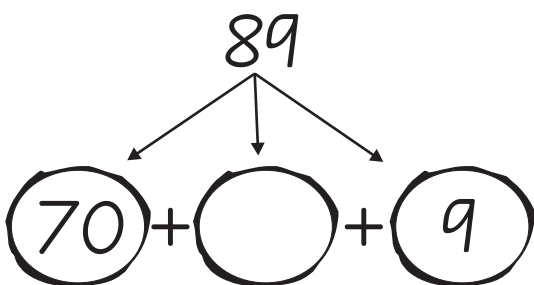
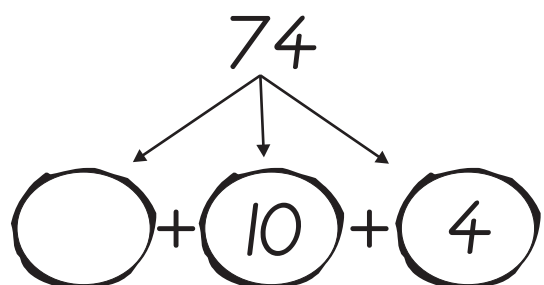
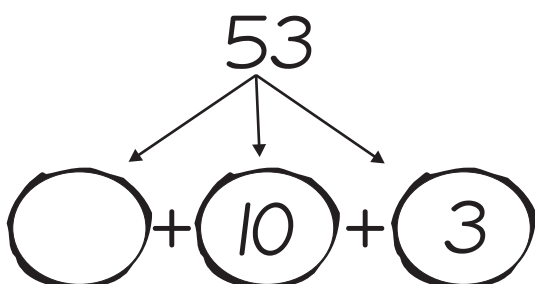
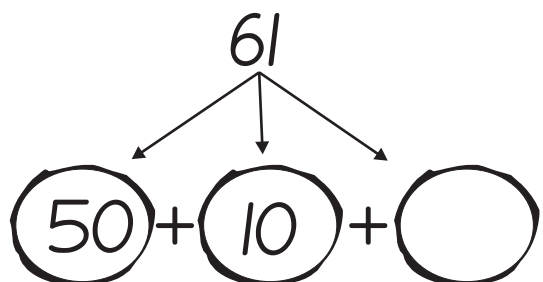
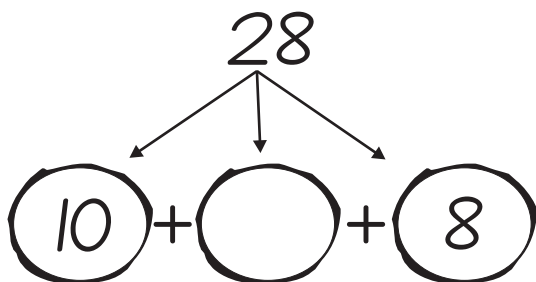
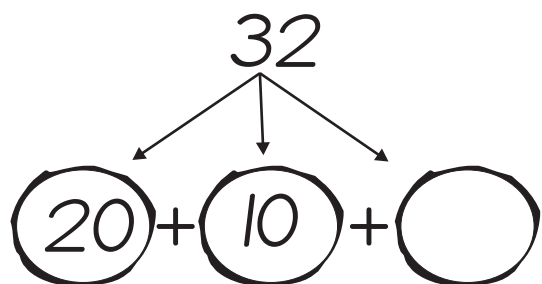
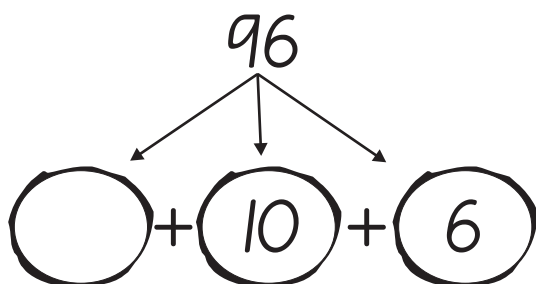
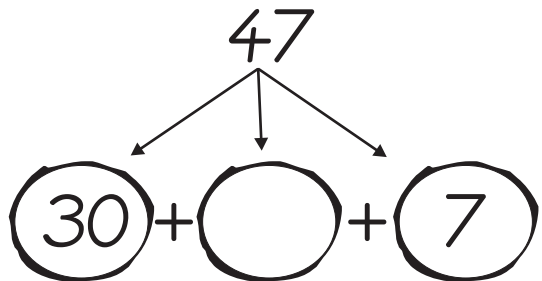
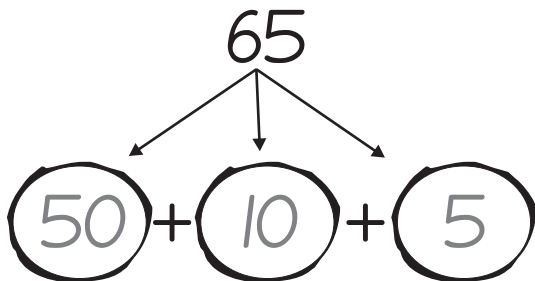
$$\begin{array}{r} 218 \\ + 15 \\ \hline \end{array} \quad \begin{array}{r} 104 \\ + 46 \\ \hline \end{array} \quad \begin{array}{r} 189 \\ + 12 \\ \hline \end{array} \quad \begin{array}{r} 255 \\ + 45 \\ \hline \end{array}$$

$$\begin{array}{r} 334 \\ + 87 \\ \hline \end{array} \quad \begin{array}{r} 319 \\ + 72 \\ \hline \end{array}$$

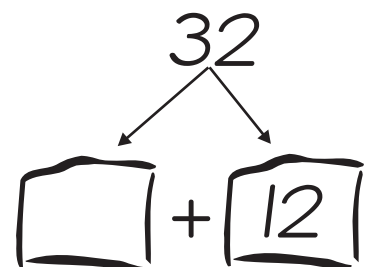
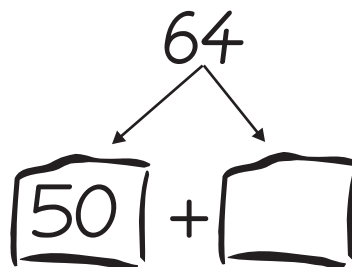
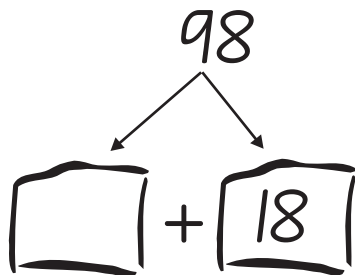
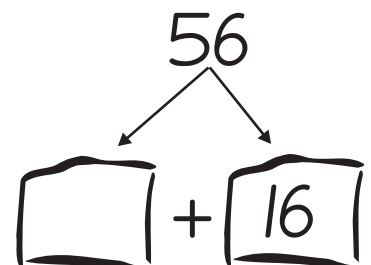
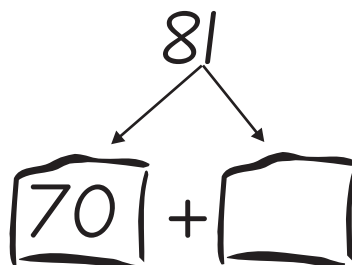
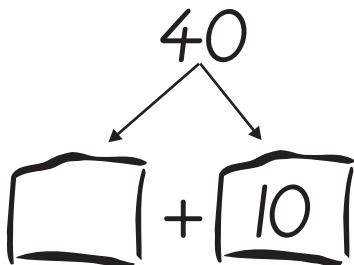
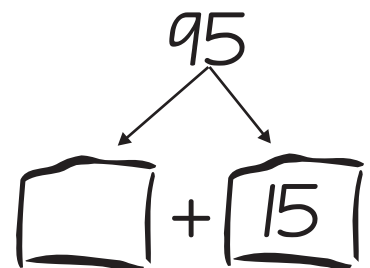
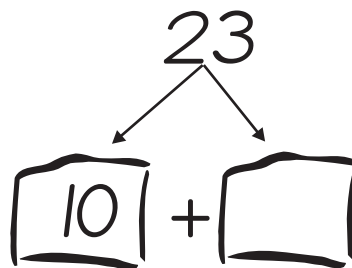
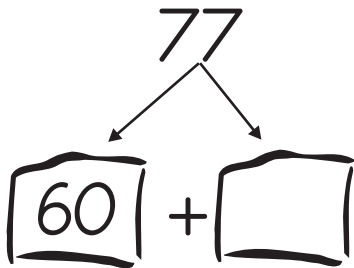
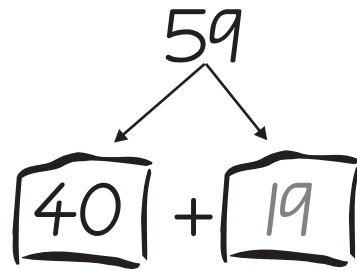
***Did you beat 10 minutes?
You are on the way to becoming
a Maturing Mathematician.***

PARTITIONING

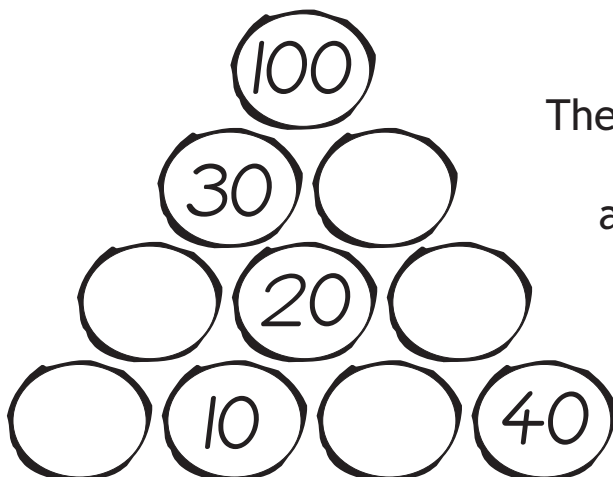
Partition these sums.



Complete these sums.

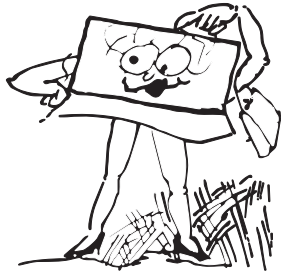


Complete the calculations.



The sum of any two adjacent numbers is the number directly above.

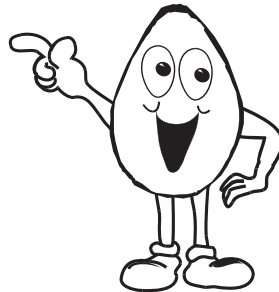
SUBTRACTION WITH CARRYING



$$\begin{array}{r} 73 \\ - 25 \\ \hline \end{array}$$

Maxine Minus and Dennis Difference show how to subtract.

you cannot subtract
5 from 3



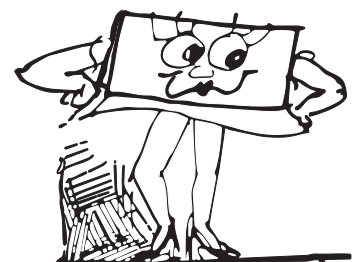
$$\begin{array}{r} 6\cancel{7}3 \\ - 25 \\ \hline 48 \end{array}$$

To help subtract, rearrange the 73 to equal 60 + 13.

$$13 - 5 = 8$$

$$6 - 2 = 4$$

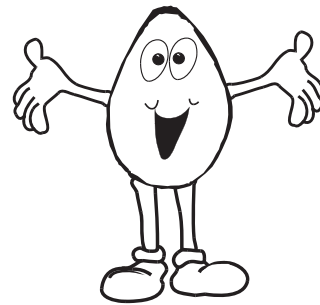
$$6(\text{tens}) - 2(\text{tens}) = 4(\text{tens})$$



Rearrange 85
to equal 70 + 15

$$\begin{array}{r}
 7 \cancel{8} 5 \\
 - \quad 28 \\
 \hline
 57
 \end{array}$$

$15 - 8 = 7$
 $7(\text{tens}) - 2(\text{tens}) = 5(\text{tens})$



Rearrange 62
to equal 50 + 12

$$\begin{array}{r}
 5 \cancel{6} 2 \\
 - \quad 47 \\
 \hline
 15
 \end{array}$$

$12 - 7 = 5$
 $5(\text{tens}) - 4(\text{tens}) = 1(\text{ten})$

- SUBTRACTION -

① $27 - 12$ $36 - 23$ $45 - 34$ $38 - 17$

② $26 - 19$ $36 - 19$ $56 - 29$ $76 - 39$

③ $25 - 17$ $43 - 18$ $52 - 26$ $34 - 25$

④ $36 - 25$ $41 - 17$ $57 - 48$ $44 - 29$

⑤ $22 - 16$ $35 - 19$ $54 - 47$ $93 - 68$

- MORE SUBTRACTION -

1

43	53	72	84	92	83
<u>-27</u>	<u>-18</u>	<u>-46</u>	<u>-37</u>	<u>-27</u>	<u>-56</u>

2

82	74	62	57	38	40
<u>-58</u>	<u>-39</u>	<u>-37</u>	<u>-49</u>	<u>-19</u>	<u>-22</u>

3

32	76	92	70	84	57
<u>-14</u>	<u>-38</u>	<u>-39</u>	<u>-26</u>	<u>-29</u>	<u>-48</u>

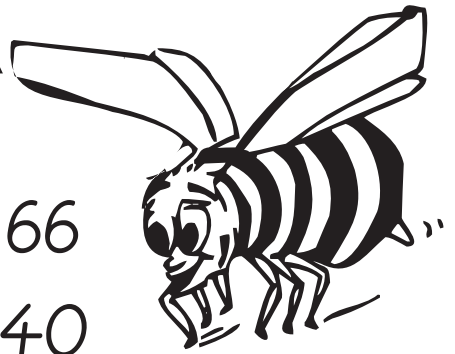
4

74	72	81	38	70	81
<u>-38</u>	<u>-25</u>	<u>-65</u>	<u>- 9</u>	<u>-44</u>	<u>-27</u>

5

34	82	47	88	72	55
<u>-16</u>	<u>-27</u>	<u>-39</u>	<u>-29</u>	<u>-25</u>	<u>-48</u>

- ANSWER THESE SUBTRACTIONS, THEN DECODE THE QUESTIONS!



$$\begin{array}{r} 94 \\ - 72 \\ \hline \end{array}$$

K

$$\begin{array}{r} 60 \\ - 23 \\ \hline \end{array}$$

G

$$\begin{array}{r} 66 \\ - 40 \\ \hline \end{array}$$

D

$$\begin{array}{r} 71 \\ - 21 \\ \hline \end{array}$$

W

$$\begin{array}{r} 46 \\ - 25 \\ \hline \end{array}$$

R

$$\begin{array}{r} 62 \\ - 53 \\ \hline \end{array}$$

N

$$\begin{array}{r} 798 \\ - 229 \\ \hline \end{array}$$

Y

$$\begin{array}{r} 52 \\ - 16 \\ \hline \end{array}$$

M

$$\begin{array}{r} 407 \\ - 121 \\ \hline \end{array}$$

V

$$\begin{array}{r} 755 \\ - 216 \\ \hline \end{array}$$

H

$$\begin{array}{r} 845 \\ - 365 \\ \hline \end{array}$$

A

$$\begin{array}{r} 462 \\ - 245 \\ \hline \end{array}$$

O

$$\begin{array}{r} 873 \\ - 254 \\ \hline \end{array}$$

T

$$\begin{array}{r} 634 \\ - 263 \\ \hline \end{array}$$

S

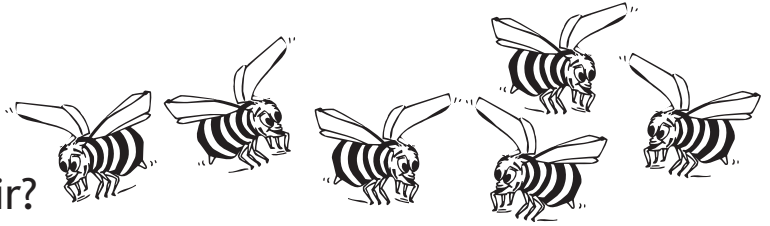
$$\begin{array}{r} 654 \\ - 288 \\ \hline \end{array}$$

B

$$\begin{array}{r} 515 \\ - 268 \\ \hline \end{array}$$

E





Why do bees have sticky hair?

$$\begin{array}{cccccccc|cccc} \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ 366 & 247 & 37 & 480 & 286 & 371 & 247 & / & 619 & 539 & 247 & 569 \end{array}$$

$$\begin{array}{cccc|cccc} \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ 286 & 371 & 247 & / & 539 & 217 & 9 & 247 & 569 \end{array}$$

$$\begin{array}{cccccc} \dots & \dots & \dots & \dots & \dots \\ 37 & 217 & 36 & 366 & 371 \end{array}$$



Why do bees hum?

$$\begin{array}{cccc|cccc|cccc} \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ 619 & 539 & 247 & 569 & / & 26 & 217 & 9 & 619 & / & 22 & 9 & 217 & 50 \end{array}$$

$$\begin{array}{cccc|cccc} \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ 619 & 539 & 247 & / & 50 & 217 & 21 & 26 & 371 \end{array}$$

6	1	8
7	5	3
2	9	4

THE MAGIC SQUARE

Each row adds up to

Each column adds up to

Each diagonal adds up to

- MORE SUPER SUBTRACTION -



1

$$\begin{array}{r} 85 \\ -62 \\ \hline \end{array}$$

C

$$\begin{array}{r} 46 \\ -22 \\ \hline \end{array}$$

E

$$\begin{array}{r} 61 \\ -21 \\ \hline \end{array}$$

M

$$\begin{array}{r} 88 \\ -45 \\ \hline \end{array}$$

N

2

$$\begin{array}{r} 45 \\ -27 \\ \hline \end{array}$$

T

$$\begin{array}{r} 52 \\ -16 \\ \hline \end{array}$$

D

$$\begin{array}{r} 71 \\ -26 \\ \hline \end{array}$$

I

$$\begin{array}{r} 40 \\ -13 \\ \hline \end{array}$$

L

3

$$\begin{array}{r} 32 \\ -15 \\ \hline \end{array}$$

A

$$\begin{array}{r} 28 \\ -19 \\ \hline \end{array}$$

U

$$\begin{array}{r} 44 \\ -36 \\ \hline \end{array}$$

H

$$\begin{array}{r} 52 \\ -17 \\ \hline \end{array}$$

S

4

587

462

766

-247

-235

-129

R

G

W



5

655

622

514

-127

-347

-263

O

Y

P

- ANSWER THE SUBTRACTIONS THEN DECODE THIS



.....
40 45 227 8 18 275

.....
40 17 18 8 35

.....
637 45 43 35 18 8 24

.....
637 528 340 27 36

.....
23 9 251

ARITHMETIC

Calculate each sum.

1

	25	26	17	47
	+ 35	+ 55	+ 18	+ 44
C	<hr/>	N	B	U

2

	103	18	47
	+ 27	+ 6	+ 23
I	<hr/>	T	A

3

	92	82	110	62
	- 59	- 23	- 70	- 16
D	<hr/>	H	E	O

4

$$\begin{array}{r} 70 \\ - 41 \\ \hline \end{array}$$

W

$$\begin{array}{r} 100 \\ - 32 \\ \hline \end{array}$$

C

$$\begin{array}{r} 51 \\ - 19 \\ \hline \end{array}$$

S

Why Did The Swimmer NOT Like Training In The Rain?

Match the letters with the answers below.

.....

35 40 68 70 91 32 40 59 40

.....

33 130 33 81 46 24

.....

29 70 81 24 24 46 60 40 24

..... !

29 40 24



MORE ARITHMETIC

$$\begin{array}{r} 47 \\ + 28 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 37 \\ + 43 \\ \hline 80 \end{array}$$

$$\begin{array}{r} 73 \\ + 18 \\ \hline 91 \end{array}$$

$$\begin{array}{r} 75 \\ + 25 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 42 \\ + 69 \\ \hline 111 \end{array}$$

$$\begin{array}{r} 83 \\ + 45 \\ \hline 128 \end{array}$$

$$\begin{array}{r} 238 \\ + 47 \\ \hline 285 \end{array}$$

$$\begin{array}{r} 165 \\ + 93 \\ \hline 258 \end{array}$$

$$\begin{array}{r} 28 \\ - 9 \\ \hline 19 \end{array}$$

$$\begin{array}{r} 41 \\ - 33 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 74 \\ - 16 \\ \hline 58 \end{array}$$

$$\begin{array}{r} 51 \\ - 45 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 82 \\ - 64 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 93 \\ - 59 \\ \hline 34 \end{array}$$

$$\begin{array}{r} 56 \\ - 27 \\ \hline 29 \end{array}$$

$$\begin{array}{r} 84 \\ - 68 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 91 \\ - 39 \\ \hline 52 \end{array}$$



Match the letters from the last page with the answer below.

$$\begin{array}{r} \text{|||} \\ \hline 8 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \begin{array}{r} \text{.....} \\ \hline 6 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \quad \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{.....} \\ \hline 6 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \quad \begin{array}{r} \text{|||} \\ \hline 8 \end{array} \begin{array}{r} \text{.....} \\ \hline 6 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array}$$

$$\begin{array}{r} \text{|||} \\ \hline 75 \end{array} \begin{array}{r} \text{.....} \\ \hline 91 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \begin{array}{r} \text{.....} \\ \hline 52 \end{array} \quad \begin{array}{r} \text{.....} \\ \hline 19 \end{array} \begin{array}{r} \text{.....} \\ \hline 16 \end{array}$$

$$\begin{array}{r} \text{.....} \\ \hline 29 \end{array} \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{|||} \\ \hline 8 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \begin{array}{r} \text{.....} \\ \hline 29 \end{array} \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{|||} \\ \hline 100 \end{array} \begin{array}{r} \text{.....} \\ \hline 34 \end{array} \begin{array}{r} \text{.....} \\ \hline 100 \end{array} \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{.....} \\ \hline 80 \end{array}$$

$$\begin{array}{r} \text{|||} \\ \hline 8 \end{array} \begin{array}{r} \text{.....} \\ \hline 19 \end{array} \begin{array}{r} \text{.....} \\ \hline 52 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \quad \begin{array}{r} \text{|||} \\ \hline 8 \end{array} \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{|||} \\ \hline \end{array}$$

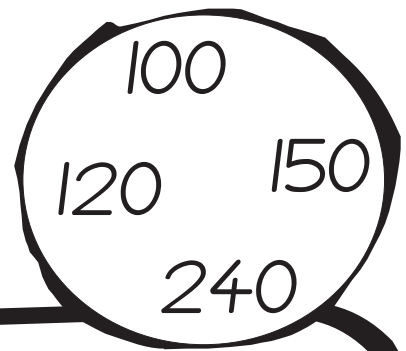
$$\begin{array}{r} \text{.....} \\ \hline 34 \end{array} \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{.....} \\ \hline 80 \end{array} \quad \begin{array}{r} \text{.....} \\ \hline 34 \end{array} \begin{array}{r} \text{.....} \\ \hline 19 \end{array} \begin{array}{r} \text{.....} \\ \hline 128 \end{array} \begin{array}{r} \text{.....} \\ \hline 80 \end{array} \begin{array}{r} \text{|||} \\ \hline \end{array} \quad \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{.....} \\ \hline 80 \end{array} \begin{array}{r} \text{.....} \\ \hline 258 \end{array}$$

$$\begin{array}{r} \text{|||} \\ \hline 8 \end{array} \begin{array}{r} \text{.....} \\ \hline 19 \end{array} \begin{array}{r} \text{.....} \\ \hline 52 \end{array} \begin{array}{r} \text{.....} \\ \hline 58 \end{array} \quad \begin{array}{r} \text{|||} \\ \hline 8 \end{array} \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{|||} \\ \hline \end{array}$$

$$\begin{array}{r} \text{.....} \\ \hline 34 \end{array} \begin{array}{r} \text{.....} \\ \hline 285 \end{array} \begin{array}{r} \text{.....} \\ \hline 80 \end{array} \begin{array}{r} \text{|||} \\ \hline \end{array}$$

ARITHMETIC

Use the numbers to complete the addition and subtraction statements below.



-ADDITION-

1 + = 220

2 + = 270

3 + = 340

4 + = 250

5 + = 360

6 + = 390

-SUBTRACTION-

7 - = 50

8 - = 30

9 - = 20

10 - = 120

11 - = 140

12 - = 90

MEASURING LINES

Write down the length of each line in cm and mm.

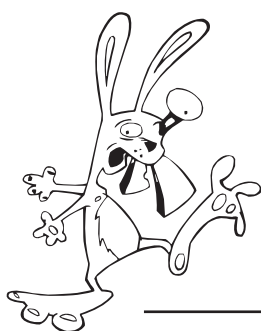
5cm
50mm

MEASURING

Show on the line where each lands



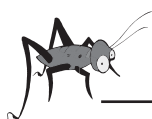
Tank the fish jumps 5 cm



Chopper the rabbit jumps 12 cm



Bert the beetle jumps 3.5 cm

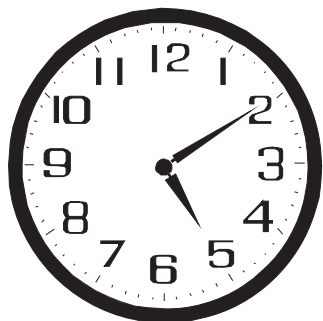


Charlie the cricket jumps 6 cm



Frieda the frog jumps 9.5 cm

WHAT'S THE TIME?



5:10
.....
Ten past
five.....



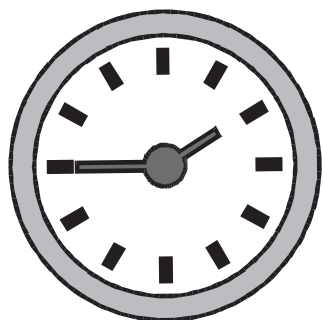
.....
.....
.....



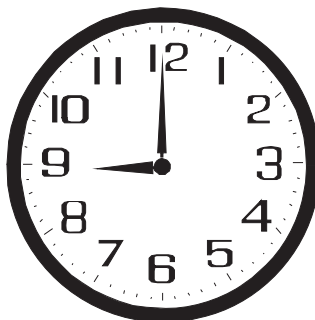
.....
.....
.....



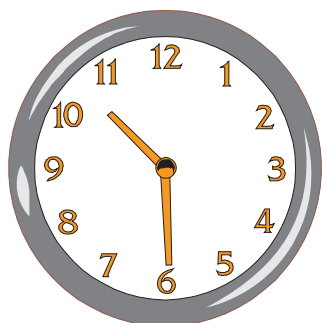
.....
.....
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.....
.....
.....



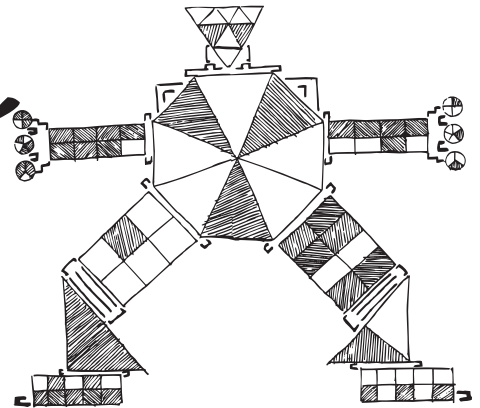
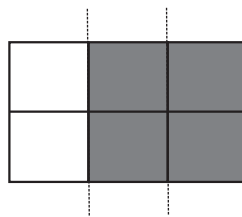
.....
.....
.....

Fraction Man is back ...

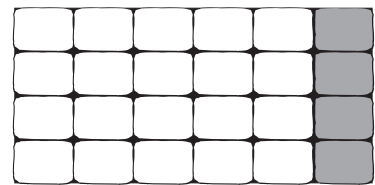
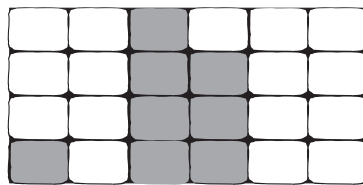
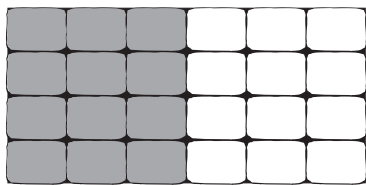
..... FRACTIONS

- A FRACTION IS A PART OF SOMETHING!!

This square can be divided into 3 parts with 2 parts shaded.
Therefore $\frac{2}{3}$ is shaded.



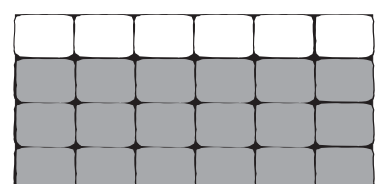
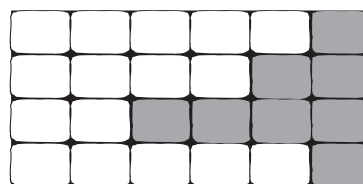
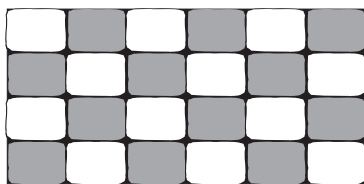
Write underneath each shape the fraction that is shaded



.....

.....

.....

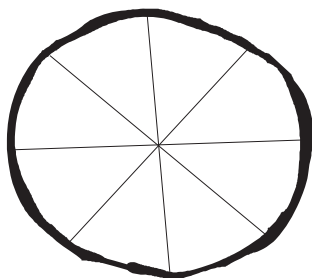


.....

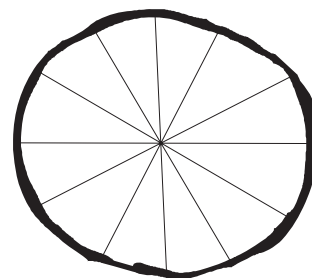
.....

.....

Colour the parts of the shapes given.



$$\frac{4}{8}$$



$$\frac{1}{3}$$

The shape below is one unit.



Shade in each fraction.



1 half



1 third



1 quarter



1 sixth



2 thirds



3 quarters

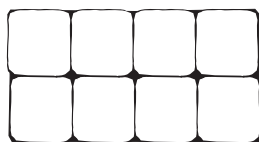


4 sixths

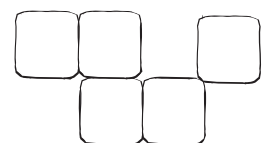
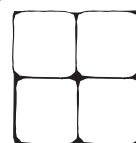


2 halves

If this is 1 unit

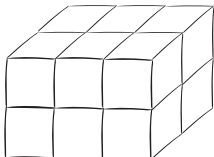


what fraction of the unit is each of these?

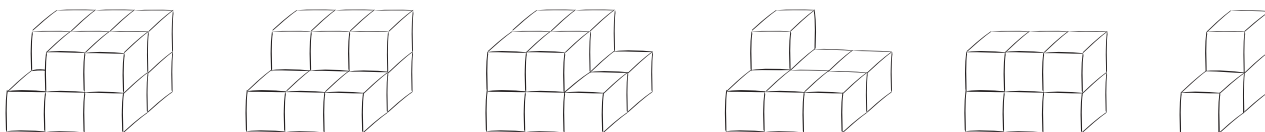


.....

FRACTIONS

If this is 1 unit,  how many blocks make up this 1 unit?

What fraction of the unit is each of these?



.....

Fill in the missing numbers.

$$2 \text{ fifths} + \boxed{3} \text{ fifths} = 1$$

$$3 \text{ eighths} + \boxed{} \text{ eighths} = 1$$

$$3 \text{ quarters} + \boxed{} \text{ quarters} = 1$$

$$1 \text{ third} + \boxed{} \text{ third} = 1$$

$$3 \text{ tenths} + \boxed{} \text{ tenths} = 1$$

$$3 \text{ sixths} + \boxed{} \text{ sixths} = 1$$

$$4 \text{ ninths} + \boxed{} \text{ ninths} = 1$$

$$1 \text{ half} + \boxed{} \text{ half} = 1$$

Draw the whole unit if this is:

1 half 

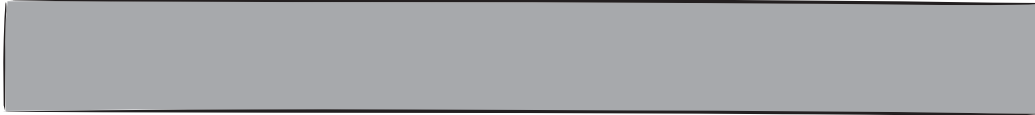
1 quarter 

1 third 

1 fifth 

FRACTIONS

What is the value of each shaded part?



1 unit

.....



.....



.....



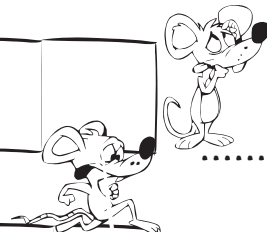
.....



.....



.....



.....



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.....

EQUIVALENT FRACTIONS

In the circle put a greater than (>), less than (<) or equal (=) sign.
 HINT: The fraction blocks on the previous page may help.

$\frac{1}{2} \bigcirc \frac{1}{3}$

$\frac{2}{6} \bigcirc \frac{1}{3}$

$\frac{3}{4} \bigcirc \frac{2}{3}$

$\frac{1}{6} \bigcirc \frac{1}{5}$

$\frac{2}{3} \bigcirc \frac{3}{5}$

$\frac{2}{3} \bigcirc \frac{8}{10}$

$\frac{1}{10} \bigcirc \frac{1}{5}$

$1 \bigcirc \frac{9}{10}$

$\frac{1}{3} \bigcirc \frac{3}{9}$

Equivalent fractions are fractions that are the same.
 Use the diagram to write down the equivalent fractions.



.....



.....



.....



.....



.....

FRACTIONS



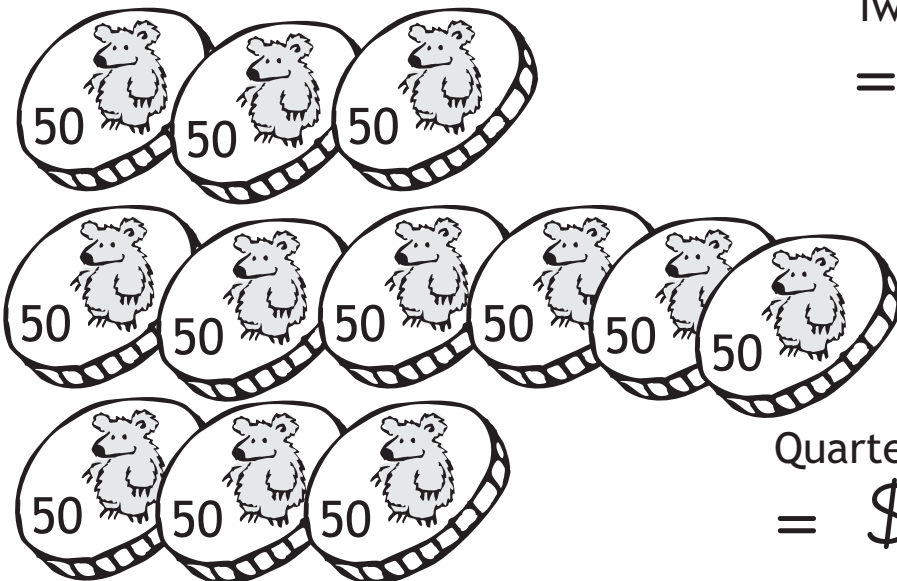
Half of \$12

=



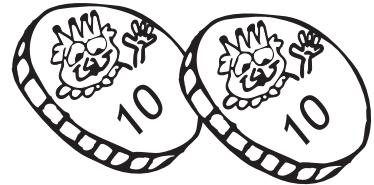
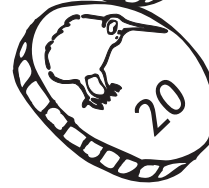
Half of \$2.60

=



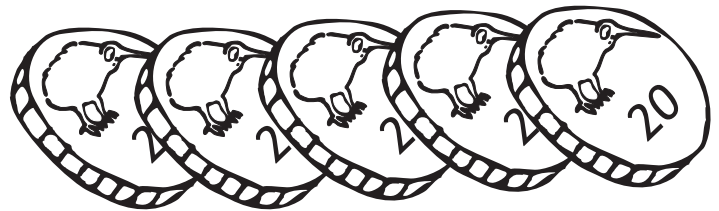
Quarter of \$6

= \$



Quarter of 80c

=



Two fifths of \$1

=

MORE ARITHMETIC

$$30 + \overset{P}{\square} = 100$$

$$82 + \overset{I}{\square} = 89$$

$$50 + \overset{N}{\square} = 90$$

$$64 + \overset{G}{\square} = 90$$

$$40 + \overset{J}{\square} = 60$$

$$47 + \overset{M}{\square} = 60$$

$$80 - \overset{F}{\square} = 30$$

$$18 + \overset{O}{\square} = 21$$

$$50 - \overset{E}{\square} = 40$$

$$95 - \overset{Z}{\square} = 80$$

$$100 - \overset{S}{\square} = 70$$

$$80 - \overset{C}{\square} = 20$$

$$55 - \overset{\mathbf{K}}{\square} = 30$$

$$33 + \overset{\mathbf{W}}{\square} = 38$$

$$54 - \overset{\mathbf{L}}{\square} = 46$$

$$68 - \overset{\mathbf{H}}{\square} = 30$$

$$25 - \overset{\mathbf{A}}{\square} = 8$$

$$76 - \overset{\mathbf{U}}{\square} = 60$$

$$62 + \overset{\mathbf{R}}{\square} = 66$$

$$29 + \overset{\mathbf{B}}{\square} = 35$$

$$24 - \overset{\mathbf{I}}{\square} = 12$$

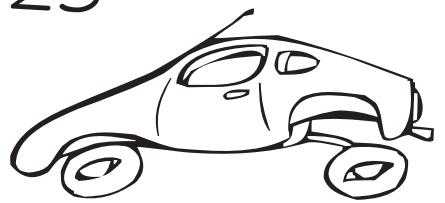
$$45 + \overset{\mathbf{Y}}{\square} = 54$$

Use your answers from the last two pages to match the letters and complete the jokes.

Doctor Doctor

I think I'm a car!

20 16 30 12 70 17 4 25
9 3 16 4 30 10 8 50



I'll be with you in a minute

Doctor Doctor

I think I'm a dog!

12 38 10 40 26 10 12 3 50 50
12 38 10 60 3 16 60 38



I'll be with you in a minute

Doctor Doctor

I feel like a curtain!

70 16 8 8 9 3 16 4 30 10 8 50

12 3 26 10 12 38 10 4

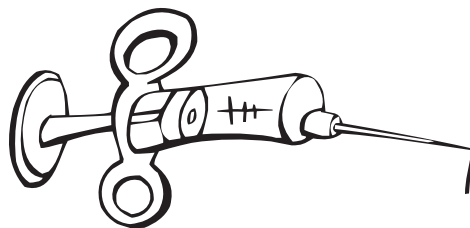
I'll be with you in a minute



Doctor Doctor

I only have 59 seconds to live!

7 8 8 6 10 5 7 12 38
9 3 16 7 40 17
13 7 40 16 12 10 !





Find The MISSING NUMBERS

1

$$\begin{array}{r} 6 \\ + \square \\ \hline 14 \end{array}$$

$$\begin{array}{r} \square \\ + 9 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 2\square \\ + 3 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 1\square \\ + 3 \\ \hline 22 \end{array}$$

2

$$\begin{array}{r} 23 \\ + 1\square \\ \hline 40 \end{array}$$

$$\begin{array}{r} 12 \\ + \square 8 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 37 \\ + 2\square \\ \hline 57 \end{array}$$

$$\begin{array}{r} 27 \\ + \square 5 \\ \hline 52 \end{array}$$

3

$$\begin{array}{r} 7 \\ - \square \\ \hline 3 \end{array}$$

$$\begin{array}{r} 27 \\ - \square \square \\ \hline 13 \end{array}$$

$$\begin{array}{r} 3\square \\ - 4 \\ \hline 35 \end{array}$$

$$\begin{array}{r} 42 \\ - \square 5 \\ \hline 17 \end{array}$$

4

$$\begin{array}{r} 4\square \\ - 26 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 52 \\ - 1\square \\ \hline 34 \end{array}$$

$$\begin{array}{r} 46 \\ - \square 8 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 63 \\ - 3\square \\ \hline 27 \end{array}$$

CRACK THE CODE

$1 = 1$

$4 = 4$

$7 = 7$

$2 = 2$

$5 = 5$

$8 = 8$

$0 = 0$

$3 = 3$

$6 = 6$

$9 = 9$

1

$$\begin{array}{r} \text{Tree} \quad \text{Boat} \\ + \text{Horse} \quad \text{Fish} \\ \hline 4 \quad 5 \end{array}$$

$$\begin{array}{r} \text{Jeep} \quad \text{Sun} \\ + \text{Tree} \quad \text{Boat} \\ \hline \end{array}$$

$$\begin{array}{r} \text{Sun} \quad \text{Fish} \\ + \text{Pencil} \quad \text{Sun} \\ \hline \end{array}$$

2

$$\begin{array}{r} \text{Boat} \quad \text{Jeep} \\ + \text{Alarm} \quad \text{Fish} \\ \hline \end{array}$$

$$\begin{array}{r} \text{Key} \quad \text{Jeep} \\ + \text{Pencil} \quad \text{Alarm} \\ \hline \end{array}$$

$$\begin{array}{r} \text{Alarm} \quad \text{Boat} \\ + \text{Sun} \quad \text{Fish} \\ \hline \end{array}$$

3

$$\begin{array}{r} \text{Fish} \quad \text{Butterfly} \\ - \text{Pencil} \quad \text{Pencil} \\ \hline \end{array}$$

$$\begin{array}{r} \text{Jeep} \quad \text{Fish} \\ - \text{Pencil} \quad \text{Tree} \\ \hline \end{array}$$

$$\begin{array}{r} \text{Sun} \quad \text{Jeep} \\ - \text{Pencil} \quad \text{Boat} \\ \hline \end{array}$$


4

$$\begin{array}{r} \text{Fish} \quad \text{Tree} \\ - \text{Jeep} \quad \text{Sun} \\ \hline \end{array}$$

$$\begin{array}{r} \text{Alarm} \quad \text{Sun} \\ - \text{Horse} \quad \text{Fish} \\ \hline \end{array}$$

$$\begin{array}{r} \text{Boat} \quad \text{Horse} \\ - \text{Sun} \quad \text{Sun} \\ \hline \end{array}$$

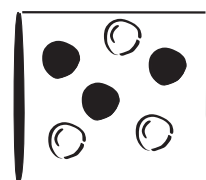
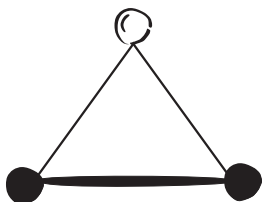
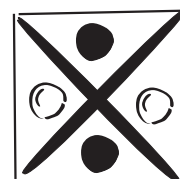
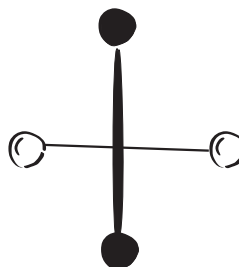
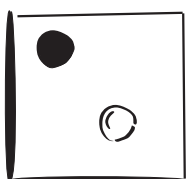
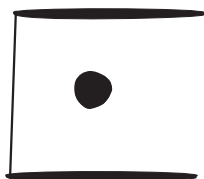
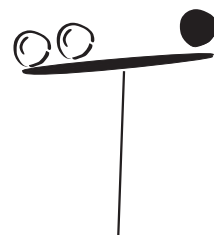
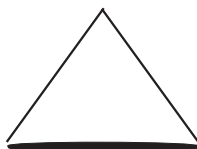
MORE MIGHTY MATHS


 each ● is worth 5 each _____ is worth 2
 each ○ is worth 3 each _____ is worth 10

Use the key above to calculate the values of each shape.



$$3 + 2 + 3 = 8$$



POSITION

Label with the correct terms.

lighter heavier
full empty
tall short
large small
above on
beside slow fast

5

COMBINATIONS

There are 5 roads that lead to school. List all the different combinations of routes that can be taken.

1, 4 2, 4 3, 4
1, 5 2, 5 3, 5

List the ways in which you can hang the photos

Celine Ryan Robbie Robbie Celine Ryan
Celine Robbie Ryan Ryan Robbie Celine
Robbie Ryan Celine Ryan Celine Robbie

6

MORE COMBINATIONS

Choose 1 sandwich and 1 kind of fruit. List the different combinations.

ham sandwich... banana
ham sandwich... apple
ham sandwich... orange
salad sandwich... banana
salad sandwich... apple
salad sandwich... orange

Three numbers are purchased for the mail box. What are the different digit numbers that can be produced from 2, 5 and 8?

258
285
528
582
852
825

7

NUMBER SERIES

Write the largest and smallest numbers that can be formed from these digits. (Repetition of digits is not allowed.)

Largest Smallest

4, 1, 2 41211 1124

7, 4, 5 7154 4157

8, 0, 2 8120 0128

3, 9, 6 91613 31619

Complete each number series below.

705, 704, 703, 702, 701, 700, 699
210, 212, 214, 216, 218, 220, 222
4.35, 4.40, 4.45, 4.50, 4.55, 4.60, 4.65
880, 870, 860, 850, 840, 830, 820

8

NUMBER SERIES

Arrange these numbers in ascending order. Ascending order means smallest to biggest.

264, 426, 624, 462, 642, 246

246, 264, 426, 462, 624, 642

105, 505, 515, 550, 551, 555, 105, 551, 550

555, 105, 551, 550

505, 515

Arrange these numbers in descending order. Descending order means biggest to smallest.

857, 758, 578, 785, 875, 587

875, 857, 785, 758, 587, 578

256, 265, 526, 265, 526, 652, 625

652, 625, 562, 526, 265, 256, 526, 265

Complete the calculations.

100
40 60
20 20 40
10 10 10 30
5 5 5 5 25

The sum of any two adjacent numbers is the number directly above.

9

ADDITION

Shade the circles that represent the number 57 then give the answer.

57 + 43 = 100

Shade the circles that represent the number 73 then give the answer.

73 + 27 = 100

Shade the circles that represent the number 68 then give the answer.

68 + 32 = 100

Shade the circles that represent the number 34 then give the answer.

34 + 66 = 100

Shade the circles that represent the number 29 then give the answer.

29 + 71 = 100

10

Shade the circles that represent the number 45 then give the answer.

45 + 55 = 100

Shade the circles that represent the number 50 then give the answer.

50 + 50 = 100

Complete these sums.

40 + 60 = 100 32 + 68 = 100
30 + 70 = 100 85 + 15 = 100
50 + 50 = 100 3 + 97 = 100
70 + 30 = 100 7 + 93 = 100
1 + 99 = 100 4 + 96 = 100
2 + 98 = 100 23 + 77 = 100
5 + 95 = 100 67 + 33 = 100
51 + 49 = 100 54 + 46 = 100

11

55 + 58 = 113

96 + 39 = 135

78 + 66 = 144

66 + 56 = 122

87 + 44 = 131

13

145 - 56 = 89

108 - 41 = 67

126 - 68 = 58

149 - 55 = 94

132 - 67 = 65

15

PLACE VALUE

The value of the digit 8 in the number 483 is eighty
 The value of the digit 2 in the number 852 is two (ones)
 The value of the digit 5 in the number 591 is five hundred
 The value of the digit 0 in the number 307 is zero (no) tens
 The value of the digit 7 in the number 740 is seven hundred

Write these numbers in the correct order.

316 313 315 312 314

312 313 314 315 316

561 560 577 578 579

560 561 577 578 579

850 853 849 851 852

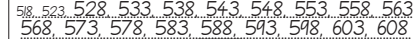
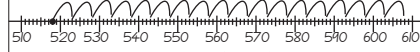
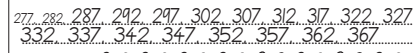
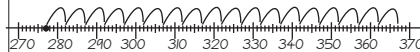
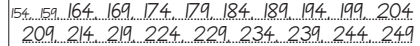
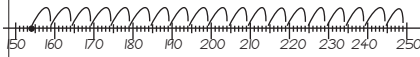
849 850 851 852 853

16

MIGHTY MATHS

$$\begin{array}{l} 249 + 1 = 250 \\ 299 + 1 = 300 \\ 329 + 10 = 339 \\ 150 - 3 = 147 \\ 581 - 2 = 579 \\ 578 - 10 = 568 \end{array} \quad \begin{array}{l} 389 + 1 = 390 \\ 546 + 10 = 556 \\ 161 + 10 = 171 \\ 214 - 10 = 204 \\ 131 - 2 = 129 \\ 246 - 10 = 236 \end{array}$$

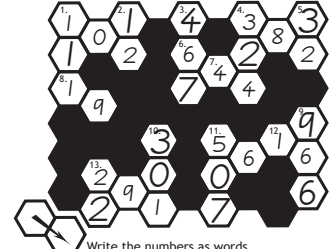
Start at the dot and continue to add 5 to each number



17

Write these numbers into the hexanumber.

- one hundred and eleven
- twelve
- four hundred and sixty seven
- three hundred and twenty four
- thirty two
- nine hundred and sixty six
- three hundred and one
- five hundred and seven
- twenty two



Write the numbers as words.

- one hundred and two
- three hundred and eighty two
- six hundred and forty four
- nineteen
- fifty six
- sixteen
- two hundred and ninety one

18

SEQUENCES

Increase / decrease by 1 to finish each sequence.

315, 316, 317, 318, 319, 320, 321, 322, 323, 324

567, 568, 569, 570, 571, 572, 573, 574, 575, 576

721, 720, 719, 718, 717, 716, 715, 714, 713, 712

902, 901, 900, 899, 898, 897, 896, 895, 894, 893

Increase / decrease by 2 to finish each sequence.

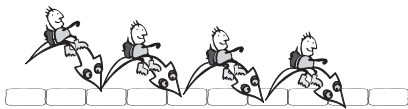
210, 212, 214, 216, 218, 220, 222, 224, 226, 228

832, 834, 836, 838, 840, 842, 844, 846, 848, 850

500, 502, 504, 506, 508, 510, 512, 514, 516, 518

720, 718, 716, 714, 712, 710, 708, 706, 704, 702

680, 678, 676, 674, 672, 670, 668, 666, 664, 662



19

SEQUENCES

Increase / decrease by 5 to finish each sequence.

125, 130, 135, 140, 145, 150, 155, 160, 165, 170

650, 655, 660, 665, 670, 675, 680, 685, 690, 695

104, 109, 114, 119, 124, 129, 134, 139, 144, 149

320, 315, 310, 305, 300, 295, 290, 285, 280, 275

205, 200, 195, 190, 185, 180, 175, 170, 165, 160

Increase / decrease by 10 to finish each sequence.

211, 221, 231, 241, 251, 261, 271, 281, 291, 301

555, 565, 575, 585, 595, 605, 615, 625, 635, 645

707, 717, 727, 737, 747, 757, 767, 777, 787, 797

990, 980, 970, 960, 950, 940, 930, 920, 910, 900

455, 445, 435, 425, 415, 405, 395, 385, 375, 365



20

SEQUENCES

Write the numbers in ascending order.

(Ascending order means smallest to biggest.)

235, 204, 449, 481, 811, 825, 820, 228, 213, 420, 403, 803, 803, 811, 820, 825, 838, 803, 811, 820, 825, 838

Write the largest and smallest numbers that can be formed from each of these digits.

1 6 2 8 5 7 9 3 0 4 4 4 4 8 8 2
 641 852 973 820
 146 258 379 28

The number that comes just before 500 is 499.

The number that comes just after 789 is 790.

The numbers between 268 and 271 are 269, and 270.

Circle out the numbers greater than the one in the circle.

632, 705, 142, 534, 641, 811, 448

21

ADDITION

1

$$\begin{array}{r} 8 \\ + 7 \\ \hline 15 \end{array} \quad \begin{array}{r} 18 \\ + 7 \\ \hline 25 \end{array} \quad \begin{array}{r} 28 \\ + 7 \\ \hline 35 \end{array} \quad \begin{array}{r} 38 \\ + 7 \\ \hline 45 \end{array}$$

2

$$\begin{array}{r} 6 \\ + 9 \\ \hline 15 \end{array} \quad \begin{array}{r} 26 \\ + 9 \\ \hline 35 \end{array} \quad \begin{array}{r} 66 \\ + 9 \\ \hline 75 \end{array} \quad \begin{array}{r} 86 \\ + 9 \\ \hline 95 \end{array}$$

3

$$\begin{array}{r} 23 \\ + 8 \\ \hline 31 \end{array} \quad \begin{array}{r} 23 \\ + 18 \\ \hline 41 \end{array} \quad \begin{array}{r} 23 \\ + 28 \\ \hline 51 \end{array} \quad \begin{array}{r} 23 \\ + 58 \\ \hline 81 \end{array}$$

4

$$\begin{array}{r} 26 \\ + 6 \\ \hline 32 \end{array} \quad \begin{array}{r} 36 \\ + 16 \\ \hline 52 \end{array} \quad \begin{array}{r} 56 \\ + 26 \\ \hline 82 \end{array} \quad \begin{array}{r} 76 \\ + 36 \\ \hline 112 \end{array}$$

5

$$\begin{array}{r} 24 \\ + 18 \\ \hline 42 \end{array} \quad \begin{array}{r} 64 \\ + 28 \\ \hline 92 \end{array} \quad \begin{array}{r} 84 \\ + 28 \\ \hline 112 \end{array} \quad \begin{array}{r} 94 \\ + 38 \\ \hline 132 \end{array}$$

24

ADDITION

1

$$\begin{array}{r} 24 \\ + 27 \\ \hline 51 \end{array} \quad \begin{array}{r} 36 \\ + 26 \\ \hline 62 \end{array} \quad \begin{array}{r} 48 \\ + 25 \\ \hline 73 \end{array} \quad \begin{array}{r} 47 \\ + 37 \\ \hline 84 \end{array} \quad \begin{array}{r} 56 \\ + 39 \\ \hline 95 \end{array}$$

2

$$\begin{array}{r} 38 \\ + 47 \\ \hline 85 \end{array} \quad \begin{array}{r} 66 \\ + 19 \\ \hline 85 \end{array} \quad \begin{array}{r} 52 \\ + 33 \\ \hline 85 \end{array} \quad \begin{array}{r} 46 \\ + 39 \\ \hline 85 \end{array} \quad \begin{array}{r} 49 \\ + 36 \\ \hline 85 \end{array}$$

3

$$\begin{array}{r} 83 \\ + 37 \\ \hline 120 \end{array} \quad \begin{array}{r} 74 \\ + 56 \\ \hline 130 \end{array} \quad \begin{array}{r} 65 \\ + 75 \\ \hline 140 \end{array} \quad \begin{array}{r} 76 \\ + 74 \\ \hline 150 \end{array} \quad \begin{array}{r} 98 \\ + 62 \\ \hline 160 \end{array}$$

4

$$\begin{array}{r} 55 \\ + 22 \\ \hline 77 \end{array} \quad \begin{array}{r} 66 \\ + 33 \\ \hline 99 \end{array} \quad \begin{array}{r} 77 \\ + 44 \\ \hline 121 \end{array} \quad \begin{array}{r} 88 \\ + 55 \\ \hline 143 \end{array} \quad \begin{array}{r} 99 \\ + 66 \\ \hline 165 \end{array}$$

5

$$\begin{array}{r} 54 \\ + 45 \\ \hline 99 \end{array} \quad \begin{array}{r} 65 \\ + 56 \\ \hline 121 \end{array} \quad \begin{array}{r} 76 \\ + 67 \\ \hline 143 \end{array} \quad \begin{array}{r} 87 \\ + 78 \\ \hline 165 \end{array} \quad \begin{array}{r} 98 \\ + 89 \\ \hline 187 \end{array}$$

6

$$\begin{array}{r} 49 \\ + 62 \\ \hline 111 \end{array} \quad \begin{array}{r} 55 \\ + 67 \\ \hline 122 \end{array} \quad \begin{array}{r} 68 \\ + 65 \\ \hline 133 \end{array} \quad \begin{array}{r} 75 \\ + 69 \\ \hline 144 \end{array} \quad \begin{array}{r} 94 \\ + 61 \\ \hline 155 \end{array}$$

25

LEVEL 1

$$\begin{array}{r} 28 \\ + 2 \\ \hline 30 \end{array} \quad \begin{array}{r} 57 \\ + 3 \\ \hline 60 \end{array} \quad \begin{array}{r} 34 \\ + 6 \\ \hline 40 \end{array} \quad \begin{array}{r} 71 \\ + 9 \\ \hline 80 \end{array} \quad \begin{array}{r} 62 \\ + 8 \\ \hline 70 \end{array} \quad \begin{array}{r} 45 \\ + 5 \\ \hline 50 \end{array} \quad \begin{array}{r} 70 \\ + 30 \\ \hline 100 \end{array} \quad \begin{array}{r} 20 \\ + 80 \\ \hline 100 \end{array}$$



LEVEL 2

$$\begin{array}{r} 26 \\ + 29 \\ \hline 55 \end{array} \quad \begin{array}{r} 55 \\ + 38 \\ \hline 93 \end{array} \quad \begin{array}{r} 34 \\ + 47 \\ \hline 81 \end{array} \quad \begin{array}{r} 22 \\ + 68 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 36 \\ + 25 \\ \hline 61 \end{array} \quad \begin{array}{r} 29 \\ + 44 \\ \hline 73 \end{array} \quad \begin{array}{r} 56 \\ + 39 \\ \hline 95 \end{array} \quad \begin{array}{r} 27 \\ + 53 \\ \hline 80 \end{array}$$

$$\begin{array}{r} 17 \\ + 29 \\ \hline 46 \end{array} \quad \begin{array}{r} 56 \\ + 39 \\ \hline 95 \end{array} \quad \begin{array}{r} 42 \\ + 28 \\ \hline 70 \end{array} \quad \begin{array}{r} 35 \\ + 26 \\ \hline 61 \end{array}$$

26

LEVEL 3

$\begin{array}{r} 87 \\ + 57 \\ \hline 144 \end{array}$	$\begin{array}{r} 74 \\ + 27 \\ \hline 101 \end{array}$	$\begin{array}{r} 55 \\ + 68 \\ \hline 123 \end{array}$	$\begin{array}{r} 92 \\ + 65 \\ \hline 157 \end{array}$
$\begin{array}{r} 66 \\ + 55 \\ \hline 121 \end{array}$	$\begin{array}{r} 78 \\ + 44 \\ \hline 122 \end{array}$	$\begin{array}{r} 29 \\ + 93 \\ \hline 122 \end{array}$	$\begin{array}{r} 65 \\ + 38 \\ \hline 103 \end{array}$

LEVEL 4

$\begin{array}{r} 127 \\ + 53 \\ \hline 180 \end{array}$	$\begin{array}{r} 219 \\ + 74 \\ \hline 293 \end{array}$	$\begin{array}{r} 246 \\ + 49 \\ \hline 295 \end{array}$	$\begin{array}{r} 165 \\ + 28 \\ \hline 193 \end{array}$
$\begin{array}{r} 218 \\ + 15 \\ \hline 233 \end{array}$	$\begin{array}{r} 104 \\ + 46 \\ \hline 150 \end{array}$	$\begin{array}{r} 189 \\ + 12 \\ \hline 201 \end{array}$	$\begin{array}{r} 255 \\ + 45 \\ \hline 300 \end{array}$
$\begin{array}{r} 334 \\ + 87 \\ \hline 421 \end{array}$	$\begin{array}{r} 319 \\ + 72 \\ \hline 391 \end{array}$		

*Did you beat 10 minutes?
You are on the way to becoming
a Maturing Mathematician.*

27

PARTITIONING

Partition these sums.

$\begin{array}{c} 65 \\ \swarrow \downarrow \searrow \\ (50) + (10) + (5) \end{array}$	$\begin{array}{c} 47 \\ \swarrow \downarrow \searrow \\ (30) + (10) + (7) \end{array}$
$\begin{array}{c} 96 \\ \swarrow \downarrow \searrow \\ (80) + (10) + (6) \end{array}$	$\begin{array}{c} 32 \\ \swarrow \downarrow \searrow \\ (20) + (10) + (2) \end{array}$
$\begin{array}{c} 28 \\ \swarrow \downarrow \searrow \\ (10) + (10) + (8) \end{array}$	$\begin{array}{c} 61 \\ \swarrow \downarrow \searrow \\ (50) + (10) + (1) \end{array}$
$\begin{array}{c} 53 \\ \swarrow \downarrow \searrow \\ (40) + (10) + (3) \end{array}$	$\begin{array}{c} 74 \\ \swarrow \downarrow \searrow \\ (60) + (10) + (4) \end{array}$
$\begin{array}{c} 89 \\ \swarrow \downarrow \searrow \\ (70) + (10) + (9) \end{array}$	$\begin{array}{c} 50 \\ \swarrow \downarrow \searrow \\ (40) + (10) + (0) \end{array}$

28

Complete these sums.

$\begin{array}{c} 59 \\ \swarrow \downarrow \searrow \\ (40) + (19) \end{array}$	$\begin{array}{c} 77 \\ \swarrow \downarrow \searrow \\ (60) + (17) \end{array}$	$\begin{array}{c} 23 \\ \swarrow \downarrow \searrow \\ (10) + (13) \end{array}$	$\begin{array}{c} 95 \\ \swarrow \downarrow \searrow \\ (80) + (15) \end{array}$
$\begin{array}{c} 40 \\ \swarrow \downarrow \searrow \\ (30) + (10) \end{array}$	$\begin{array}{c} 81 \\ \swarrow \downarrow \searrow \\ (70) + (11) \end{array}$	$\begin{array}{c} 56 \\ \swarrow \downarrow \searrow \\ (40) + (16) \end{array}$	
$\begin{array}{c} 98 \\ \swarrow \downarrow \searrow \\ (80) + (18) \end{array}$	$\begin{array}{c} 64 \\ \swarrow \downarrow \searrow \\ (50) + (14) \end{array}$	$\begin{array}{c} 32 \\ \swarrow \downarrow \searrow \\ (20) + (12) \end{array}$	

Complete the calculations.

$\begin{array}{c} 100 \\ (30) (70) \\ (10) (20) (50) \\ (0) (10) (10) (40) \end{array}$	The sum of any two adjacent numbers is the number directly above.
---	---

29

- SUBTRACTION -

1 $\begin{array}{r} 27 \\ - 12 \\ \hline 15 \end{array}$	$\begin{array}{r} 36 \\ - 23 \\ \hline 13 \end{array}$	$\begin{array}{r} 45 \\ - 34 \\ \hline 11 \end{array}$	$\begin{array}{r} 38 \\ - 17 \\ \hline 21 \end{array}$
2 $\begin{array}{r} 26 \\ - 19 \\ \hline 7 \end{array}$	$\begin{array}{r} 36 \\ - 19 \\ \hline 17 \end{array}$	$\begin{array}{r} 56 \\ - 29 \\ \hline 27 \end{array}$	$\begin{array}{r} 76 \\ - 39 \\ \hline 37 \end{array}$
3 $\begin{array}{r} 25 \\ - 17 \\ \hline 8 \end{array}$	$\begin{array}{r} 43 \\ - 18 \\ \hline 25 \end{array}$	$\begin{array}{r} 52 \\ - 26 \\ \hline 26 \end{array}$	$\begin{array}{r} 34 \\ - 25 \\ \hline 9 \end{array}$
4 $\begin{array}{r} 36 \\ - 25 \\ \hline 11 \end{array}$	$\begin{array}{r} 41 \\ - 17 \\ \hline 24 \end{array}$	$\begin{array}{r} 57 \\ - 48 \\ \hline 9 \end{array}$	$\begin{array}{r} 44 \\ - 29 \\ \hline 15 \end{array}$
5 $\begin{array}{r} 22 \\ - 16 \\ \hline 6 \end{array}$	$\begin{array}{r} 35 \\ - 19 \\ \hline 16 \end{array}$	$\begin{array}{r} 54 \\ - 47 \\ \hline 7 \end{array}$	$\begin{array}{r} 93 \\ - 68 \\ \hline 25 \end{array}$



32

- MORE SUBTRACTION -

1 $\begin{array}{r} 43 \\ - 27 \\ \hline 16 \end{array}$	$\begin{array}{r} 53 \\ - 18 \\ \hline 35 \end{array}$	$\begin{array}{r} 72 \\ - 46 \\ \hline 26 \end{array}$	$\begin{array}{r} 84 \\ - 37 \\ \hline 47 \end{array}$	$\begin{array}{r} 92 \\ - 27 \\ \hline 65 \end{array}$	$\begin{array}{r} 83 \\ - 56 \\ \hline 27 \end{array}$
2 $\begin{array}{r} 82 \\ - 58 \\ \hline 24 \end{array}$	$\begin{array}{r} 74 \\ - 39 \\ \hline 35 \end{array}$	$\begin{array}{r} 62 \\ - 37 \\ \hline 25 \end{array}$	$\begin{array}{r} 57 \\ - 49 \\ \hline 8 \end{array}$	$\begin{array}{r} 38 \\ - 19 \\ \hline 19 \end{array}$	$\begin{array}{r} 40 \\ - 22 \\ \hline 18 \end{array}$
3 $\begin{array}{r} 32 \\ - 14 \\ \hline 18 \end{array}$	$\begin{array}{r} 76 \\ - 38 \\ \hline 38 \end{array}$	$\begin{array}{r} 92 \\ - 39 \\ \hline 53 \end{array}$	$\begin{array}{r} 70 \\ - 26 \\ \hline 44 \end{array}$	$\begin{array}{r} 84 \\ - 29 \\ \hline 55 \end{array}$	$\begin{array}{r} 57 \\ - 48 \\ \hline 9 \end{array}$
4 $\begin{array}{r} 74 \\ - 38 \\ \hline 36 \end{array}$	$\begin{array}{r} 72 \\ - 25 \\ \hline 47 \end{array}$	$\begin{array}{r} 81 \\ - 65 \\ \hline 16 \end{array}$	$\begin{array}{r} 38 \\ - 9 \\ \hline 29 \end{array}$	$\begin{array}{r} 70 \\ - 44 \\ \hline 26 \end{array}$	$\begin{array}{r} 81 \\ - 27 \\ \hline 54 \end{array}$
5 $\begin{array}{r} 34 \\ - 16 \\ \hline 18 \end{array}$	$\begin{array}{r} 82 \\ - 27 \\ \hline 55 \end{array}$	$\begin{array}{r} 47 \\ - 39 \\ \hline 8 \end{array}$	$\begin{array}{r} 88 \\ - 29 \\ \hline 59 \end{array}$	$\begin{array}{r} 72 \\ - 25 \\ \hline 47 \end{array}$	$\begin{array}{r} 55 \\ - 48 \\ \hline 7 \end{array}$

33

- ANSWER THESE SUBTRACTIONS, THEN DECIDE THE QUESTIONS!

$\begin{array}{r} 94 \\ - 72 \\ \hline K 22 \end{array}$	$\begin{array}{r} 60 \\ - 23 \\ \hline G 37 \end{array}$	$\begin{array}{r} 66 \\ - 40 \\ \hline D 26 \end{array}$	
$\begin{array}{r} 71 \\ - 21 \\ \hline W 50 \end{array}$	$\begin{array}{r} 46 \\ - 25 \\ \hline R 21 \end{array}$	$\begin{array}{r} 62 \\ - 9 \\ \hline N 53 \end{array}$	$\begin{array}{r} 798 \\ - 229 \\ \hline Y 569 \end{array}$
$\begin{array}{r} 52 \\ - 16 \\ \hline M 36 \end{array}$	$\begin{array}{r} 407 \\ - 121 \\ \hline V 286 \end{array}$	$\begin{array}{r} 755 \\ - 216 \\ \hline H 539 \end{array}$	$\begin{array}{r} 845 \\ - 365 \\ \hline A 480 \end{array}$
$\begin{array}{r} 462 \\ - 245 \\ \hline O 217 \end{array}$	$\begin{array}{r} 873 \\ - 254 \\ \hline T 619 \end{array}$	$\begin{array}{r} 634 \\ - 263 \\ \hline S 371 \end{array}$	$\begin{array}{r} 654 \\ - 288 \\ \hline B 366 \end{array}$
$\begin{array}{r} 515 \\ - 268 \\ \hline E 247 \end{array}$			

34

Why do bees have sticky hair?
BECAUSE THEY USE HONEY COMBS

Why do bees hum?
THEY DON'T KNOW THE WORDS

THE MAGIC SQUARE

6	1	8
7	5	3
2	9	4

Each row adds up to ... 15
Each column adds up to ... 15
Each diagonal adds up to ... 15

35

- MORE SUPER SUBTRACTION -

1 $\begin{array}{r} 85 \\ - 62 \\ \hline C 23 \end{array}$	$\begin{array}{r} 46 \\ - 22 \\ \hline E 24 \end{array}$	$\begin{array}{r} 61 \\ - 21 \\ \hline M 40 \end{array}$	$\begin{array}{r} 88 \\ - 45 \\ \hline N 43 \end{array}$
2 $\begin{array}{r} 45 \\ - 27 \\ \hline P 18 \end{array}$	$\begin{array}{r} 52 \\ - 16 \\ \hline D 36 \end{array}$	$\begin{array}{r} 71 \\ - 26 \\ \hline I 45 \end{array}$	$\begin{array}{r} 40 \\ - 13 \\ \hline L 27 \end{array}$
3 $\begin{array}{r} 32 \\ - 15 \\ \hline A 17 \end{array}$	$\begin{array}{r} 28 \\ - 19 \\ \hline U 9 \end{array}$	$\begin{array}{r} 44 \\ - 36 \\ \hline H 8 \end{array}$	$\begin{array}{r} 52 \\ - 17 \\ \hline S 35 \end{array}$

36

- ANSWER THE SUBTRACTIONS THEN DECIDE THIS

4 $\begin{array}{r} 587 \\ - 247 \\ \hline R 340 \end{array}$	$\begin{array}{r} 462 \\ - 235 \\ \hline G 227 \end{array}$	$\begin{array}{r} 766 \\ - 129 \\ \hline W 637 \end{array}$
5 $\begin{array}{r} 655 \\ - 127 \\ \hline O 528 \end{array}$	$\begin{array}{r} 622 \\ - 347 \\ \hline Y 275 \end{array}$	$\begin{array}{r} 514 \\ - 263 \\ \hline P 251 \end{array}$

MIGHTY MATHS WINS THE WORLD CUP

40	45	227	8	18	275
40	17	8	35		
637	45	43	35	18	8
637	528	340	27	36	
23	9	251			

37

Arithmetic

Calculate each sum.

1 $\begin{array}{r} 25 \\ + 35 \\ \hline \end{array}$ $\begin{array}{r} 26 \\ + 55 \\ \hline \end{array}$ $\begin{array}{r} 17 \\ + 18 \\ \hline \end{array}$ $\begin{array}{r} 47 \\ + 44 \\ \hline \end{array}$
C $\begin{array}{r} 60 \\ + 35 \\ \hline \end{array}$ **N** $\begin{array}{r} 81 \\ + 55 \\ \hline \end{array}$ **B** $\begin{array}{r} 35 \\ + 18 \\ \hline \end{array}$ **U** $\begin{array}{r} 91 \\ + 44 \\ \hline \end{array}$

2 $\begin{array}{r} 103 \\ + 27 \\ \hline \end{array}$ $\begin{array}{r} 18 \\ + 6 \\ \hline \end{array}$ $\begin{array}{r} 47 \\ + 23 \\ \hline \end{array}$

3 $\begin{array}{r} 92 \\ - 59 \\ \hline \end{array}$ $\begin{array}{r} 82 \\ - 23 \\ \hline \end{array}$ $\begin{array}{r} 110 \\ - 70 \\ \hline \end{array}$ $\begin{array}{r} 62 \\ - 16 \\ \hline \end{array}$
D $\begin{array}{r} 33 \\ - 59 \\ \hline \end{array}$ **H** $\begin{array}{r} 59 \\ - 23 \\ \hline \end{array}$ **E** $\begin{array}{r} 40 \\ - 70 \\ \hline \end{array}$ **O** $\begin{array}{r} 46 \\ - 16 \\ \hline \end{array}$

38

4 $\begin{array}{r} 70 \\ - 41 \\ \hline \end{array}$ $\begin{array}{r} 100 \\ - 32 \\ \hline \end{array}$ $\begin{array}{r} 51 \\ - 19 \\ \hline \end{array}$

Why Did The Swimmer NOT Like Training In The Rain?

Match the letters with the answers below.

BECAUSE HE
 35 40 68 70 91 32 40 59 40

DID NOT
 33 130 33 81 46 24

WANT TO GET
 29 70 81 24 24 46 60 40 24

WET!
 29 40 24

39

MORE Arithmetic

$\begin{array}{r} 47 \\ + 28 \\ \hline \end{array}$ $\begin{array}{r} 37 \\ + 43 \\ \hline \end{array}$ $\begin{array}{r} 73 \\ + 18 \\ \hline \end{array}$ $\begin{array}{r} 75 \\ + 25 \\ \hline \end{array}$
Y $\begin{array}{r} 75 \\ + 28 \\ \hline \end{array}$ **N** $\begin{array}{r} 80 \\ + 43 \\ \hline \end{array}$ **P** $\begin{array}{r} 91 \\ + 18 \\ \hline \end{array}$ **I** $\begin{array}{r} 100 \\ + 25 \\ \hline \end{array}$

$\begin{array}{r} 42 \\ + 69 \\ \hline \end{array}$ $\begin{array}{r} 83 \\ + 45 \\ \hline \end{array}$ $\begin{array}{r} 238 \\ + 47 \\ \hline \end{array}$ $\begin{array}{r} 165 \\ + 93 \\ \hline \end{array}$
T $\begin{array}{r} 111 \\ + 69 \\ \hline \end{array}$ **U** $\begin{array}{r} 128 \\ + 45 \\ \hline \end{array}$ **A** $\begin{array}{r} 285 \\ + 47 \\ \hline \end{array}$ **D** $\begin{array}{r} 258 \\ + 93 \\ \hline \end{array}$

$\begin{array}{r} 28 \\ - 9 \\ \hline \end{array}$ $\begin{array}{r} 41 \\ - 33 \\ \hline \end{array}$ $\begin{array}{r} 74 \\ - 16 \\ \hline \end{array}$ $\begin{array}{r} 51 \\ - 45 \\ \hline \end{array}$
O $\begin{array}{r} 19 \\ - 9 \\ \hline \end{array}$ **H** $\begin{array}{r} 8 \\ - 33 \\ \hline \end{array}$ **E** $\begin{array}{r} 58 \\ - 16 \\ \hline \end{array}$ **R** $\begin{array}{r} 6 \\ - 45 \\ \hline \end{array}$

$\begin{array}{r} 82 \\ - 64 \\ \hline \end{array}$ $\begin{array}{r} 93 \\ - 59 \\ \hline \end{array}$ $\begin{array}{r} 56 \\ - 27 \\ \hline \end{array}$
W $\begin{array}{r} 18 \\ - 64 \\ \hline \end{array}$ **C** $\begin{array}{r} 34 \\ - 59 \\ \hline \end{array}$ **M** $\begin{array}{r} 29 \\ - 27 \\ \hline \end{array}$

$\begin{array}{r} 84 \\ - 68 \\ \hline \end{array}$ $\begin{array}{r} 91 \\ - 39 \\ \hline \end{array}$
F $\begin{array}{r} 16 \\ - 68 \\ \hline \end{array}$ **S** $\begin{array}{r} 52 \\ - 39 \\ \hline \end{array}$

40

Match the letters from the last page with the answer below.

THERE ARE THREE
 8 58 6 58 285 6 58 8 6 58 58

TYPES OF
 75 91 58 52 19 16

MATHEMATICIAN
 29 285 8 58 29 285 100 34 100 285 80

THOSE THAT
 8 14 52 58 8 285

CAN COUNT AND
 34 285 80 34 14 128 80 285 80 258

THOSE THAT
 8 14 52 58 8 285

CAN'T
 34 285 80

41

Arithmetic

Use the numbers to complete the addition and subtraction statements below.

100
120 150
240

-ADDITION-

1 $120 + 100 = 220$ **7** $150 - 100 = 50$

2 $120 + 150 = 270$ **8** $150 - 120 = 30$

3 $240 + 100 = 340$ **9** $120 - 100 = 20$

4 $150 + 100 = 250$ **10** $240 - 120 = 120$

5 $240 + 120 = 360$ **11** $240 - 100 = 140$

6 $240 + 150 = 390$ **12** $240 - 150 = 90$

42

MEASURING LINES

Write down the length of each line in cm and mm.

5cm
50mm

9 cm
90 mm

3 cm
30 mm

4.5 cm
45 mm

14 cm
140 mm

7.5 cm
75 mm

16 cm
160 mm

43

MEASURING

Show on the line where each lands

Tank the fish jumps 5 cm

Chopper the rabbit jumps 12 cm

Bert the beetle jumps 3.5 cm

Charlie the cricket jumps 6 cm

Frieda the frog jumps 9.5 cm

44

WHAT'S THE TIME?

5:10 Ten past five

7:30 Seven thirty

5:00 Five o'clock

2:50 Ten to three

1:45 Quarter to two

9:00 Nine o'clock

10:30 Ten thirty

11:35 Eleven thirty five

45

Fraction Man is back ...

FRACTIONS

A FRACTION IS A PART OF SOMETHING!

This square can be divided into 3 parts with 2 parts shaded. Therefore $\frac{2}{3}$ is shaded.

Write underneath each shape the fraction that is shaded

$\frac{12}{24} = \frac{1}{2}$ $\frac{8}{24} = \frac{1}{3}$ $\frac{4}{24} = \frac{1}{6}$

$\frac{12}{24} = \frac{1}{2}$ $\frac{8}{24} = \frac{1}{3}$ $\frac{3}{4}$

Colour the parts of the shapes given.

$\frac{4}{8}$ $\frac{1}{3}$

Any 4 parts can be shaded

46

The shape below is one unit.

Shade in each fraction.

1 half

1 third

1 quarter

1 sixth

2 thirds

3 quarters

4 sixths

2 halves

If this is 1 unit

what fraction of the unit is each of these?

 $\frac{1}{2}$
 $\frac{1}{4}$
 $\frac{1}{8}$
 $\frac{1}{2}$
 $\frac{5}{8}$

47

FRACTIONS

If this is 1 unit, how many blocks make up this 1 unit?
12 blocks

What fraction of the unit is each of these?

 $\frac{1}{4}$
 $\frac{3}{4}$
 $\frac{1}{4}$
 $\frac{2}{4} = \frac{1}{2}$
 $\frac{3}{4}$
 $\frac{1}{4}$

Fill in the missing numbers.

2 fifths + 3 fifths = 1 3 eighths + 5 eighths = 1

3 quarters + 1 quarters = 1 1 third + 2 thirds = 1

3 tenths + 7 tenths = 1 3 sixths + 3 sixths = 1

4 ninths + 5 ninths = 1 1 half + 1 half = 1

Draw the whole unit if this is:

1 half

1 quarter

1 third

1 fifth

48

FRACTIONS

What is the value of each shaded part?

 $\frac{1}{2}$
 $\frac{1}{3}$
 $\frac{1}{5}$
 $\frac{1}{4}$
 $\frac{1}{6}$
 $\frac{1}{12}$
 $\frac{1}{10}$
 $\frac{1}{5}$

49

EQUIVALENT FRACTIONS

In the circle put a greater than (>), less than (<) or equal (=) sign.
HINT: The fraction blocks on the previous page may help.

$\frac{1}{2} > \frac{1}{3}$ $\frac{2}{6} = \frac{1}{3}$ $\frac{3}{4} > \frac{2}{3}$

$\frac{1}{6} < \frac{1}{5}$ $\frac{2}{3} > \frac{3}{5}$ $\frac{2}{3} < \frac{8}{10}$

$\frac{1}{10} < \frac{1}{5}$ $1 > \frac{9}{10}$ $\frac{1}{3} = \frac{3}{9}$

Equivalent fractions are fractions that are the same.
Use the diagram to write down the equivalent fractions.

$\frac{1}{2}$ $\frac{2}{4}$ $\frac{2}{5}$ $\frac{3}{6}$ $\frac{1}{10}$

50

FRACTIONS

Half of \$12 = \$6

Quarter of 80c = 20c

Half of \$2.60 = \$1.30

Two fifths of \$1 = 40c

Quarter of \$6 = \$1.50

51

MORE ARITHMETIC

$30 + \boxed{70} = 100$ $82 + \boxed{7} = 89$

$50 + \boxed{40} = 90$ $64 + \boxed{26} = 90$

$40 + \boxed{20} = 60$ $47 + \boxed{13} = 60$

$80 - \boxed{50} = 30$ $18 + \boxed{3} = 21$

$50 - \boxed{10} = 40$ $95 - \boxed{15} = 80$

$100 - \boxed{30} = 70$ $80 - \boxed{60} = 20$

52

Use your answers from the last two pages to match the letters and complete the jokes.

$55 - \boxed{25} = 30$ **K**

$33 + \boxed{5} = 38$ **N**

$54 - \boxed{8} = 46$ **L**

$68 - \boxed{38} = 30$ **H**

$25 - \boxed{17} = 8$ **A**

$76 - \boxed{16} = 60$ **U**

$62 + \boxed{4} = 66$ **R**

$29 + \boxed{6} = 35$ **B**

$45 + \boxed{9} = 54$ **V**

$24 - \boxed{12} = 12$ **I**

53

Use your answers from the last two pages to match the letters and complete the jokes.

Doctor Doctor I think I'm a car!
JUST PARK YOURSELF
20 16 30 12 70 17 4 25
9 3 16 4 30 10 8 50
I'll be with you in a minute

Doctor Doctor I think I'm a deal!
THEN GET OFF THE COUCH
12 38 10 40 26 10 12 3 50 50
12 38 10 60 3 16 60 38
I'll be with you in a minute


54

Doctor Doctor I feel like a curtain!
PULL YOURSELF TOGETHER
70 16 8 8 9 3 16 4 30 10 8 50
12 3 26 10 12 38 10 4
I'll be with you in a minute

Doctor Doctor I only have 59 seconds to live!
I'LL BE WITH YOU IN A MINUTE!
7 8 8 6 10 5 7 12 38
9 3 16 7 40 17
13 7 40 16 12 10
I'll be with you in a minute

55

Find the MISSING NUMBERS



1
$$\begin{array}{r} 6 \\ + \boxed{8} \\ \hline 14 \end{array}$$

$$\begin{array}{r} \boxed{9} \\ + \quad 9 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 2 \boxed{4} \\ + \quad 3 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 1 \boxed{9} \\ + \quad 3 \\ \hline 22 \end{array}$$

2
$$\begin{array}{r} 2 \ 3 \\ + 1 \boxed{7} \\ \hline 40 \end{array}$$

$$\begin{array}{r} 1 \ 2 \\ + \boxed{1} 8 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 3 \ 7 \\ + 2 \boxed{0} \\ \hline 57 \end{array}$$

$$\begin{array}{r} 2 \ 7 \\ + \boxed{2} 5 \\ \hline 52 \end{array}$$

3
$$\begin{array}{r} 7 \\ - \boxed{4} \\ \hline 3 \end{array}$$

$$\begin{array}{r} 2 \ 7 \\ - \boxed{1} 4 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 3 \ 9 \\ - \quad 4 \\ \hline 35 \end{array}$$

$$\begin{array}{r} 42 \\ - \boxed{2} 5 \\ \hline 17 \end{array}$$

4
$$\begin{array}{r} 4 \boxed{7} \\ - 2 \ 6 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 5 \ 2 \\ - 1 \boxed{8} \\ \hline 34 \end{array}$$

$$\begin{array}{r} 46 \\ - \boxed{3} 8 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 63 \\ - \boxed{3} 6 \\ \hline 27 \end{array}$$

56

CRACK THE CODE

= 1 = 4 = 7
 = 2 = 5 = 8 = 0
 = 3 = 6 = 9

1
$$\begin{array}{r} \text{spade} \ \text{heart} \\ + \text{horse} \ \text{leaf} \\ \hline 4 \ 5 \end{array}$$

$$\begin{array}{r} \text{horse} \ \text{sun} \\ + \text{diamond} \ \text{heart} \\ \hline 7 \ 2 \end{array}$$

$$\begin{array}{r} \text{sun} \ \text{leaf} \\ + \text{pickaxe} \ \text{sun} \\ \hline 9 \ 3 \end{array}$$

2
$$\begin{array}{r} \text{heart} \ \text{horse} \\ + \text{wheel} \ \text{leaf} \\ \hline 14 \ 2 \end{array}$$

$$\begin{array}{r} \text{key} \ \text{horse} \\ + \text{pickaxe} \ \text{wheel} \\ \hline 13 \ 0 \end{array}$$

$$\begin{array}{r} \text{wheel} \ \text{heart} \\ + \text{sun} \ \text{leaf} \\ \hline 12 \ 5 \end{array}$$

3
$$\begin{array}{r} \text{leaf} \ \text{skull} \\ - \text{pickaxe} \ \text{pickaxe} \\ \hline 4 \ 7 \end{array}$$

$$\begin{array}{r} \text{horse} \ \text{leaf} \\ - \text{pickaxe} \ \text{diamond} \\ \hline 1 \ 6 \end{array}$$

$$\begin{array}{r} \text{sun} \ \text{horse} \\ - \text{pickaxe} \ \text{heart} \\ \hline 1 \ 7 \end{array}$$

4
$$\begin{array}{r} \text{leaf} \ \text{diamond} \\ - \text{horse} \ \text{sun} \\ \hline 3 \ 7 \end{array}$$

$$\begin{array}{r} \text{wheel} \ \text{sun} \\ - \text{wheel} \ \text{leaf} \\ \hline 4 \ 7 \end{array}$$

$$\begin{array}{r} \text{heart} \ \text{horse} \\ - \text{sun} \ \text{sun} \\ \hline 1 \ 6 \end{array}$$

57

MORE MIGHTY MATHS

each is worth 5 each is worth 2
 each is worth 3 each is worth 10

Use the key above to calculate the values of each shape.

$3+2+3=8$ 14 23

27 32 28 44

27 44 48

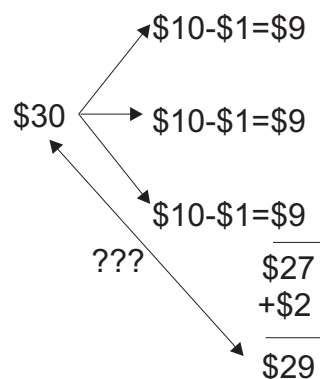
58

Here is an interesting conundrum called **The \$30 Meal**

Three mathematicians share a meal at a restaurant and split the bill. The waiter charges them \$30, and they pay \$10 each. However, the waiter comes back afterwards and says he has overcharged them and the bill should have only been \$25. Of the \$5 they are owed, they agree to take \$1 each and tip the waiter the remaining \$2 to thank him for his honesty. They have now each paid \$9 for the meal.

However: They originally paid \$30. They each end up paying \$9. Three nines are \$27, plus the \$2 which the waiter received is \$29.

Where did the extra dollar go?



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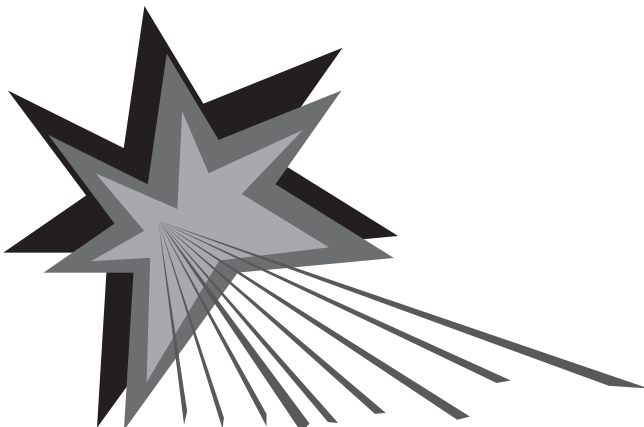
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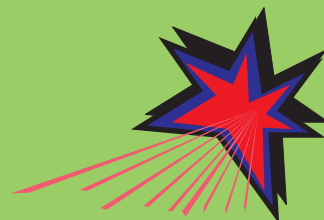
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