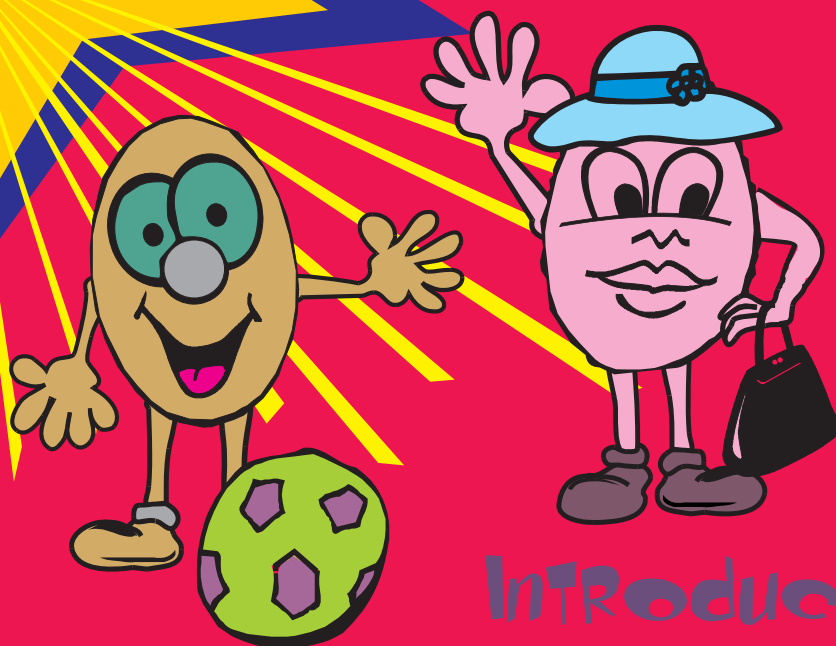
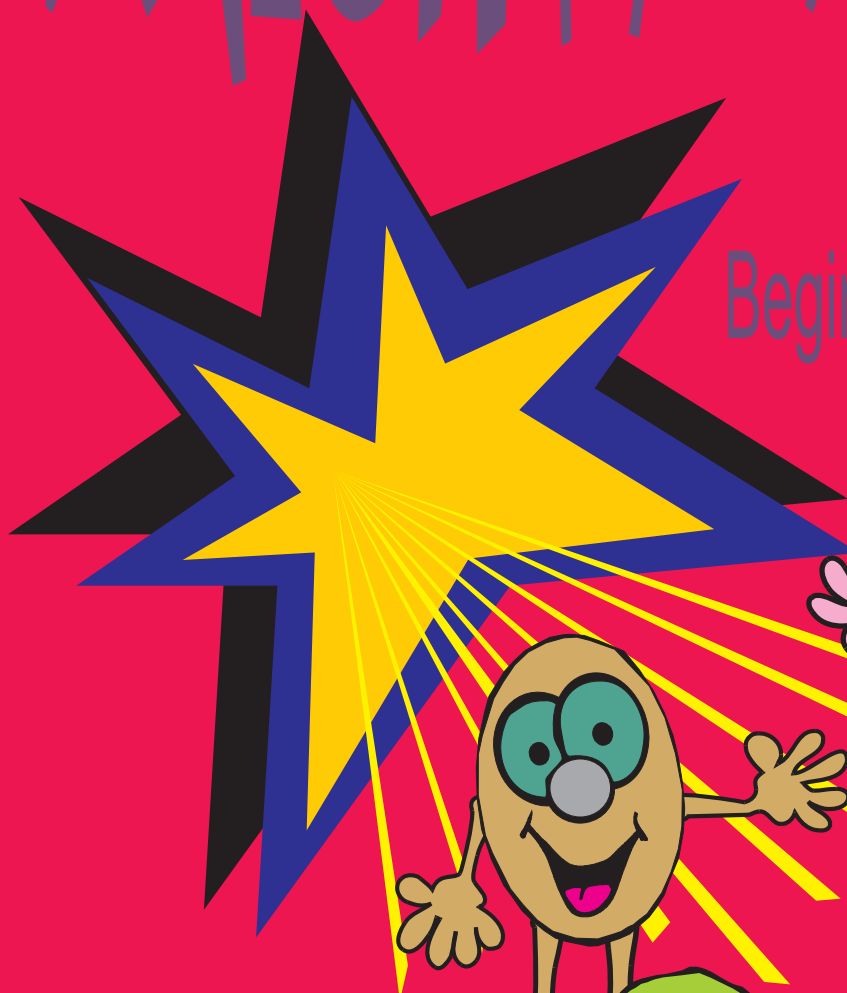


Mighty Math

for 4-6 year olds

Beginner Mathematician

BOOK 4



Introducing

MULTIPLICATION

AND DIVISION

Kim Freeman

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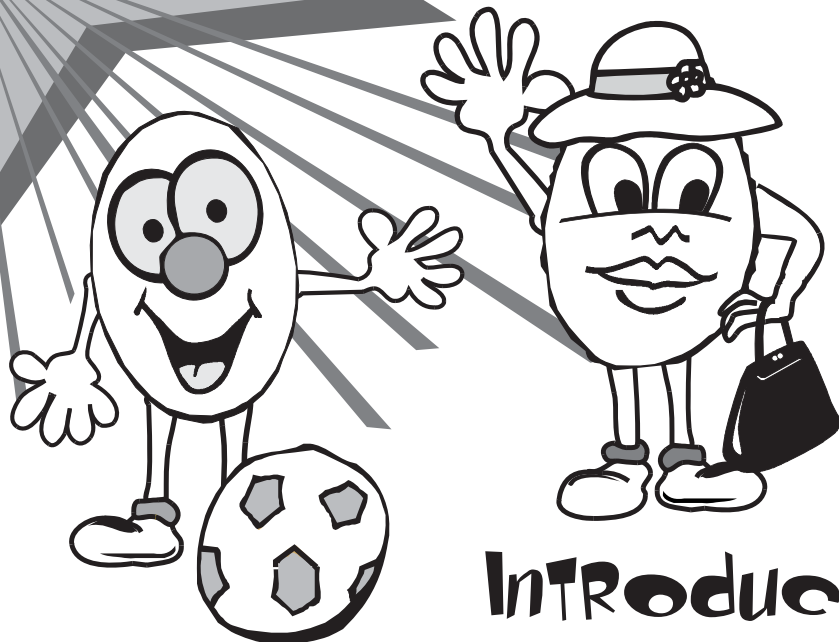
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Introducing

MULTIPLICATION AND DIVISION

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HOW CAN YOU HELP YOUR CHILD IN MATHEMATICS?

Every child wants to play in the afternoon and get rid of the cares of the school day. However if a parent provides a place and a time for learning or for going over homework, they will be surprised to find that their child quickly adapts and will actually look forward each day to the experience.

HOW CAN I MOTIVATE MY CHILD?

Communication is important. By becoming enthusiastic and involved, you are sending your child a positive message about learning. For children it is more fun to do any activity when parents or older sisters and brothers are keen to take part.

HOW CAN I MAKE THE BEST USE OF THIS BOOK?

Book 4 at this level teaches the arithmetic operations of multiplication (times) and division and introduces fractions.

- Choose a time when your child is alert and eager to learn.
- Sit down and explain each of the concepts.
- Reinforce concepts in the book by putting a number of objects into groups e.g. 10 pegs can be put into 5 groups of 2 or 2 groups of 5. Multiplication results in a bigger number, while division results in a smaller number. Explain how fractions are parts of a whole and how they are written.

WHAT HAPPENS IF MY CHILD DOES NOT GET THE ANSWERS CORRECT?

All children learn at different rates. The important thing is to remain positive and praise what has been done right. Use other examples and talk about what has gone wrong. Rub out their answers then let them try that page again. Practice and repetition will lead to increased confidence in mathematics.

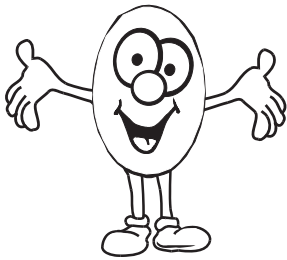
HOW LONG SHOULD MY CHILD SPEND ON MATHEMATICS?

If a child works for 15 minutes a day, they are completing nearly 2 hours extra work per week and over 90 hours per year. This is extra to their regular school lessons and is setting a pattern for later years.

Most children will need to be encouraged to start an activity, however do not force them. Help them start by reading through and explaining any instructions. Reward their efforts with more encouragement. Above all, instill an enjoyment of mathematics and its challenges. Success and confidence in any subject inevitably lead to an enjoyment of learning. We hope that you and your child have fun as they learn with the Mighty Math series. At Mahobe, we certainly had fun putting it all together for you.

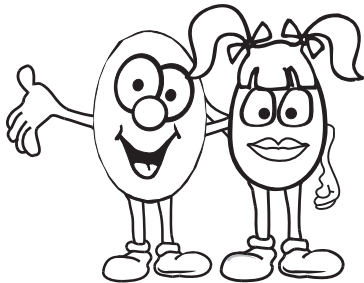
Multiplication with B.J. Product.

B.J. and his friends have all got together.
Count the number of feet in each group.



B.J. has

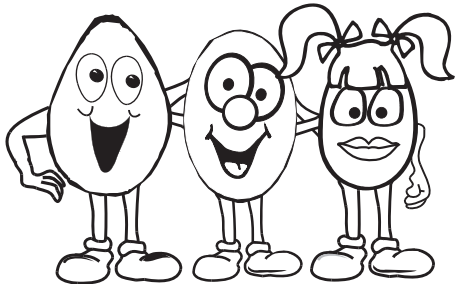
feet.



Together, B.J. and Alicia have

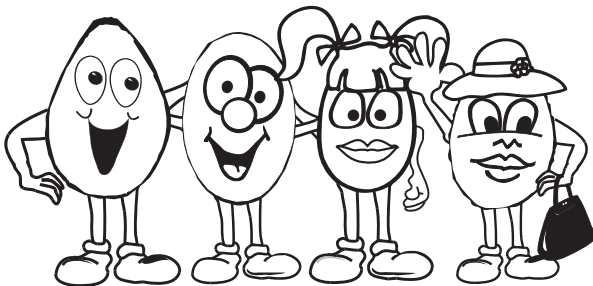
feet.

Together, Dennis, B.J. and Alicia have



feet.

Together, Dennis, B.J., Alicia and Dana have



feet.

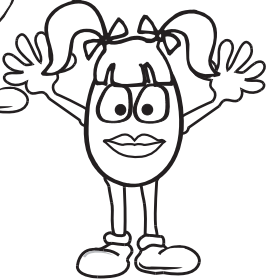
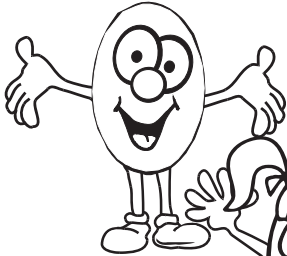
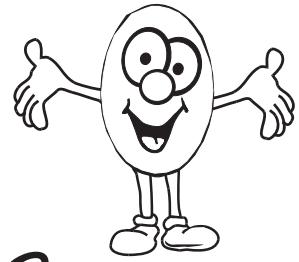
How many feet do 5 people have?

How many hands are there?

B.J. has

hands.

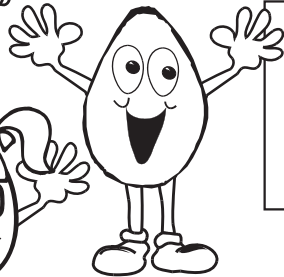
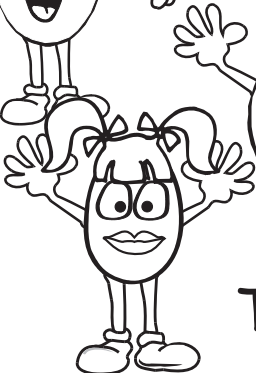
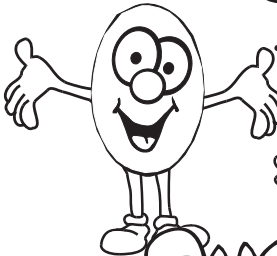
$$1 \times 2 =$$



Together, B.J. and Alicia have

hands.

$$2 \times 2 =$$



Together, Dennis, B.J., and Alicia have

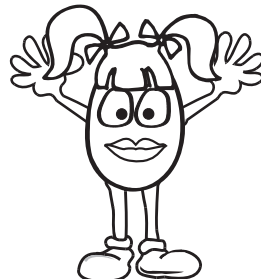
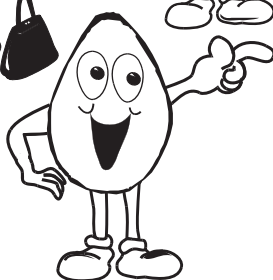
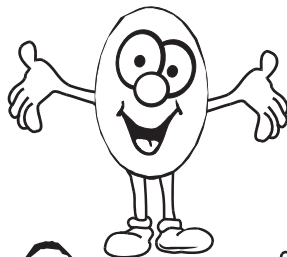
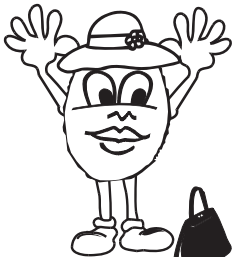
hands.

$$3 \times 2 =$$

Together, Dennis, B.J.,

Alicia and Dana have

hands.



$$4 \times 2 =$$

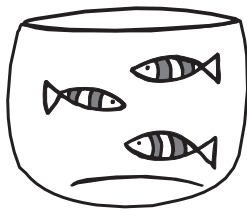
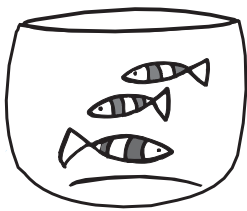
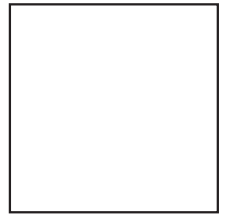
$$5 \times 2 =$$

How many hands do 5 people have?

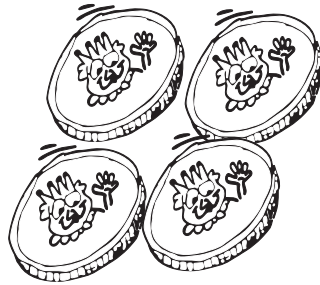
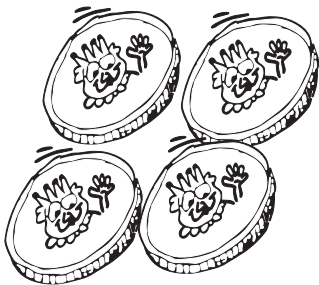
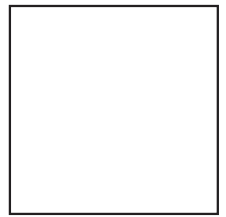
Fill in the missing spaces.



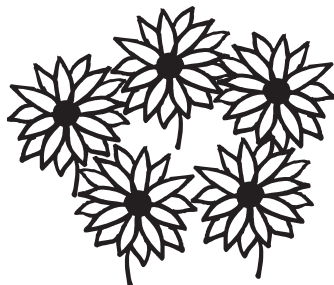
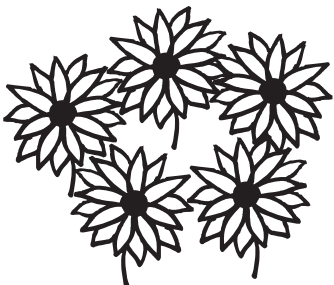
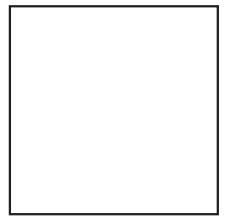
$$2 \times 2 = \square$$



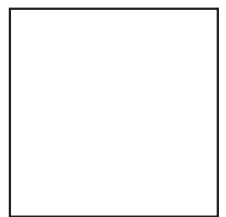
$$2 \times 3 = \square$$

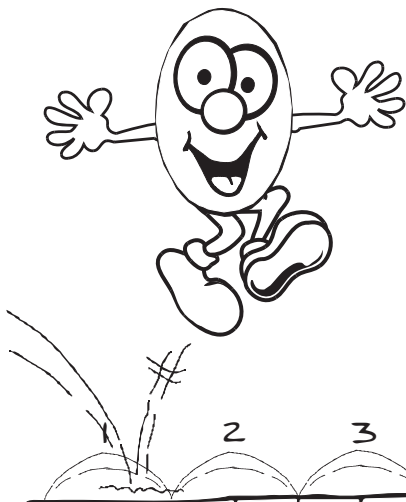


$$2 \times \bigcirc = \square$$

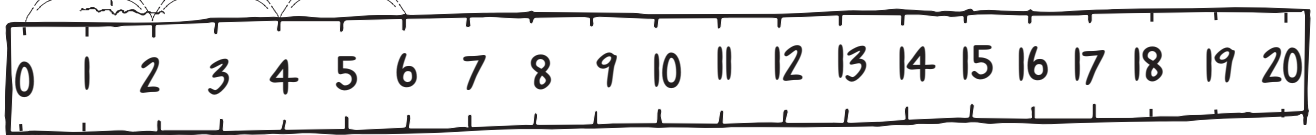


$$2 \times \bigcirc = \square$$





B.J. Product jumps along the number line in 2's. In the boxes below, write all the numbers that he lands on.



| | | | | | | | | | | |
|---|---|---|--|--|--|--|--|--|--|--|
| 0 | 2 | 4 | | | | | | | | |
|---|---|---|--|--|--|--|--|--|--|--|

Write in the missing products.

$$1 \times 2 =$$

$$6 \times 2 =$$

$$2 \times 2 =$$

$$7 \times 2 =$$

$$3 \times 2 =$$

$$8 \times 2 =$$

$$4 \times 2 =$$

$$9 \times 2 =$$

$$5 \times 2 =$$

$$10 \times 2 =$$



How many buttons on 1 shirt?

How many buttons on 2 shirts?



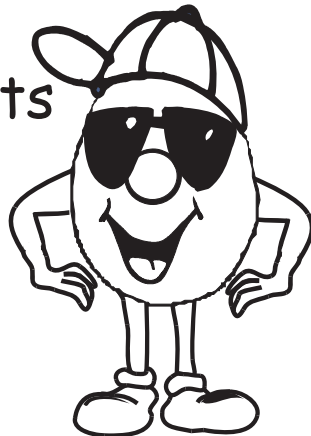
How many buttons on 3 shirts?



How many buttons on 4 shirts?



One of those shirts
will look good on
B.J. with his cool
cap and shades.



How many buttons do 5 shirts have?

Let's help B.J. count bananas.
Write in the missing numbers.



1 bunch has

bananas. $1 \times 3 =$

2 bunches have

bananas. $2 \times 3 =$

3 bunches have

bananas. $3 \times 3 =$

4 bunches have

bananas. $4 \times 3 =$

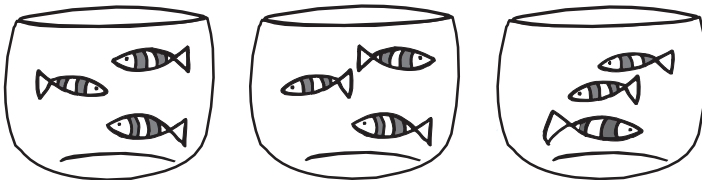
5 bunches have

bananas. $5 \times 3 =$

Fill in the missing spaces.



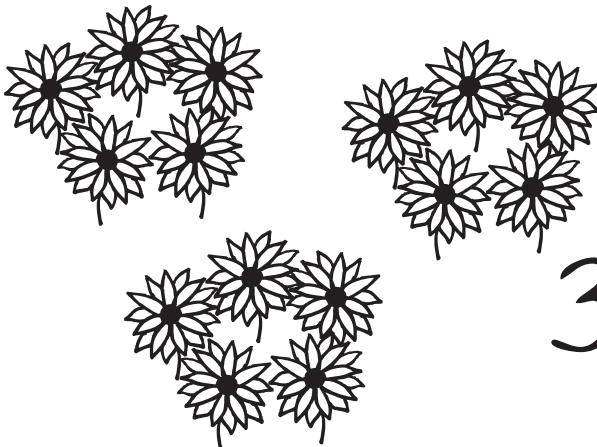
$$3 \times 2 = \square$$



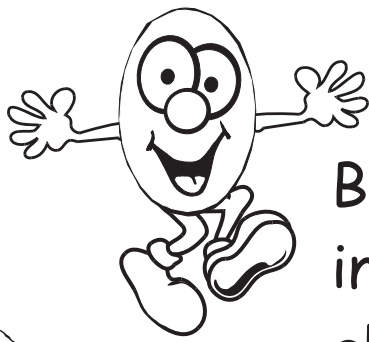
$$3 \times 3 = \square$$



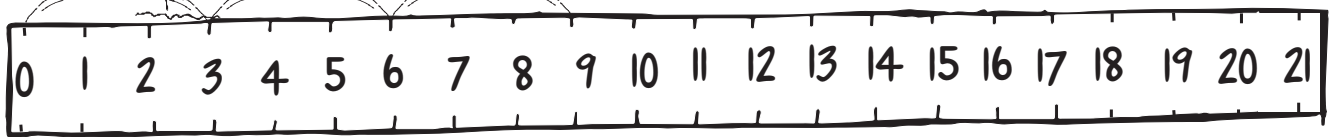
$$3 \times \bigcirc = \square$$



$$3 \times \bigcirc = \square$$



B.J. jumps along the number line in 3's. In the boxes below, write all the numbers that he lands on.



| | | | | | | | |
|---|---|--|--|--|--|--|--|
| 0 | 3 | | | | | | |
|---|---|--|--|--|--|--|--|

Write in the missing products.

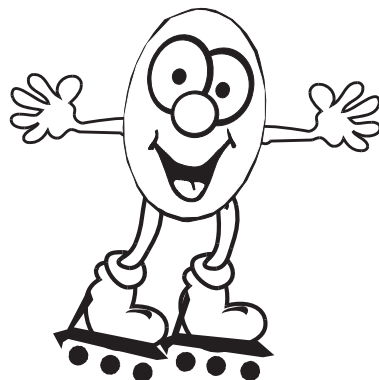
$1 \times 3 =$

$6 \times 3 =$

$2 \times 3 =$

$7 \times 3 =$

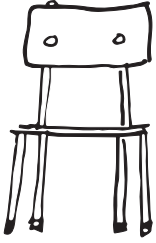
$3 \times 3 =$



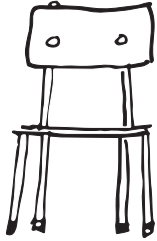
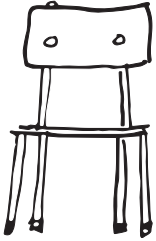
$4 \times 3 =$

$5 \times 3 =$

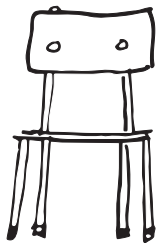
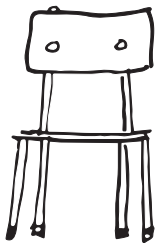
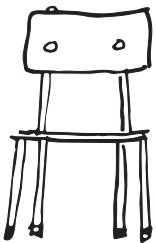
Now that B.J. knows his times 3's he's off rollerblading.



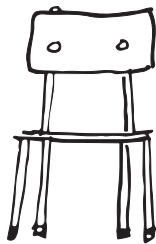
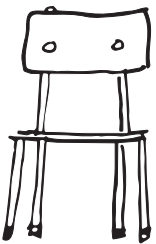
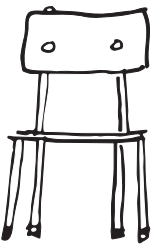
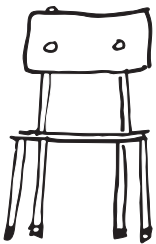
How many legs on 1 chair?



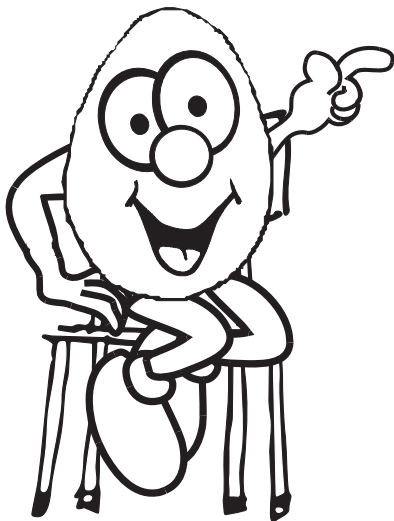
How many legs on 2 chairs?



How many legs on 3 chairs?



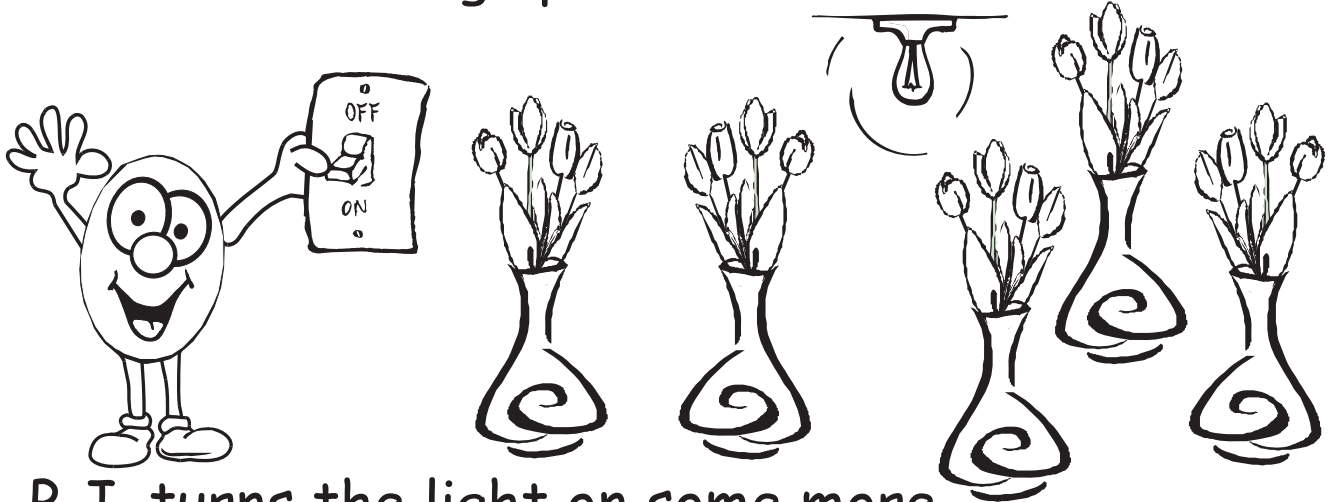
How many legs on 4 chairs?



B.J. reckons that chairs are made for sitting on, not multiplying with.

How many legs on 5 chairs?

Fill in the missing spaces.



B.J. turns the light on some more
Mighty Multiplication.

1 vase has

flowers.

$1 \times 4 =$

2 vases have

flowers.

$2 \times 4 =$

3 vases have

flowers.

$3 \times 4 =$

4 vases have

flowers.

$4 \times 4 =$

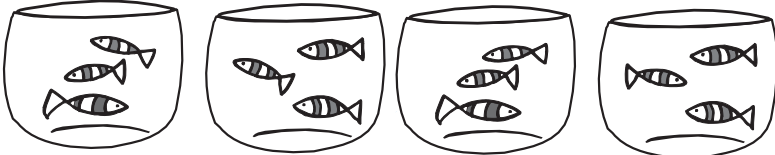
5 vases have

flowers.

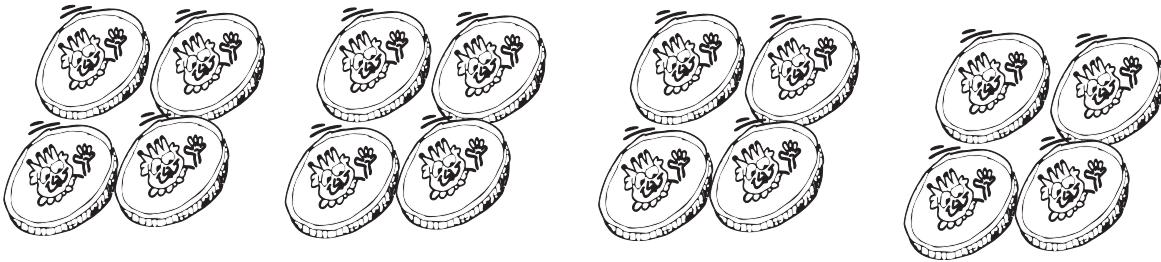
$5 \times 4 =$



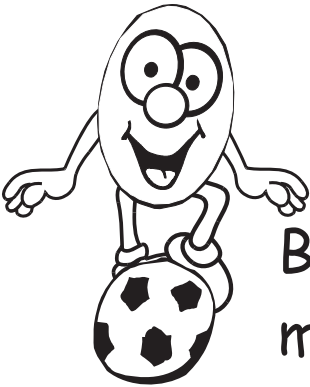
$$4 \times 2 = \square$$



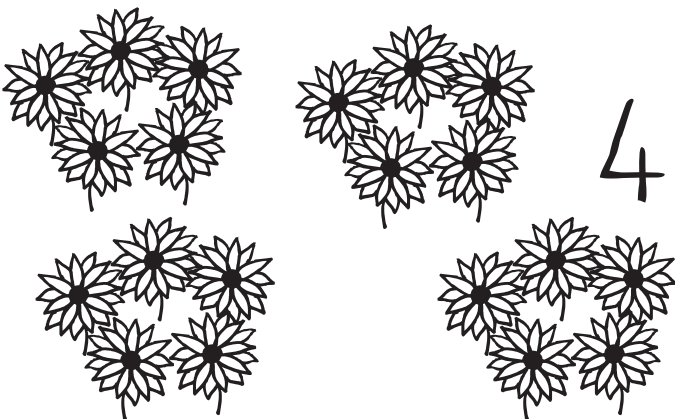
$$4 \times 3 = \square$$



$$4 \times \bigcirc = \square$$



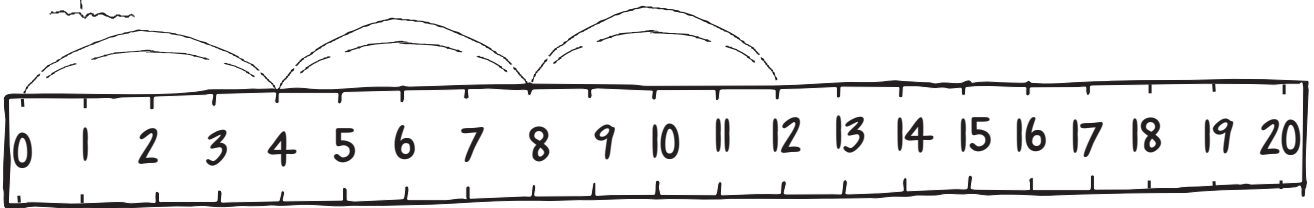
B.J. kicks around some more mighty multiplication. Don't kick that ball into the flowers B.J.!



$$4 \times \bigcirc = \square$$



B.J. jumps along the number line in 4's. In the boxes below, write all the numbers that he lands on.



| | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|

Write in the missing products.

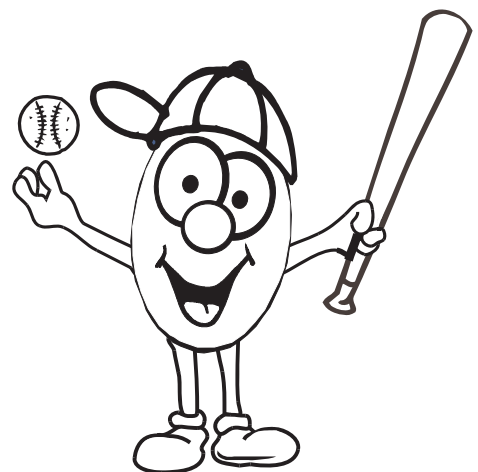
$$1 \times 4 =$$

$$2 \times 4 =$$

$$3 \times 4 =$$

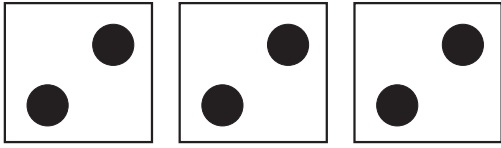
$$4 \times 4 =$$

$$5 \times 4 =$$

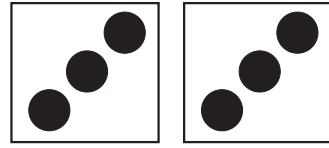


Let's help B.J. as he bats some more multiplication.

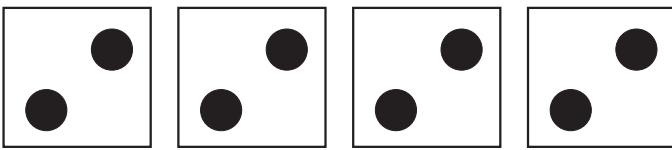
Multiplication can be written two ways.
Write in the missing products.



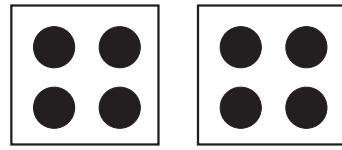
$3 \times 2 =$



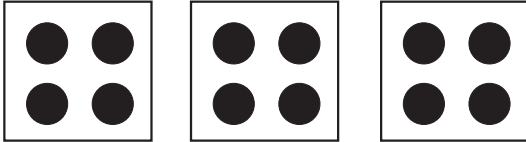
$2 \times 3 =$



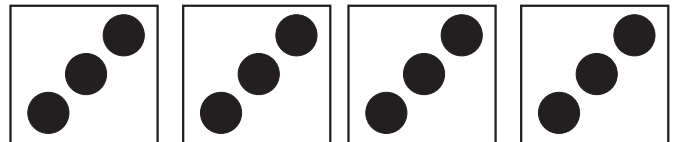
$4 \times 2 =$



$2 \times 4 =$



$3 \times 4 =$



$4 \times 3 =$

$4 \times 5 =$

$5 \times 4 =$



You don't have to know magic
to learn multiplication.

| | | | | |
|---|---|---|---|----|
| × | 1 | 2 | 3 | 4 |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | 16 |

Fill in the multiplication square.

$$4 \times 4 = 16$$

Draw a line to match the same answer.

$$2 \times 2 =$$

$$2 \times 8 =$$

$$5 \times 4 =$$

$$4 \times 1 =$$

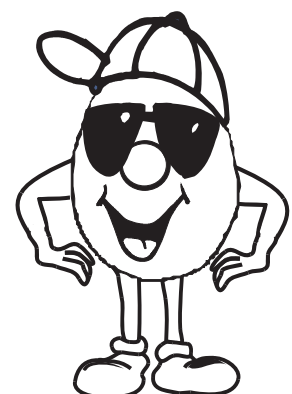
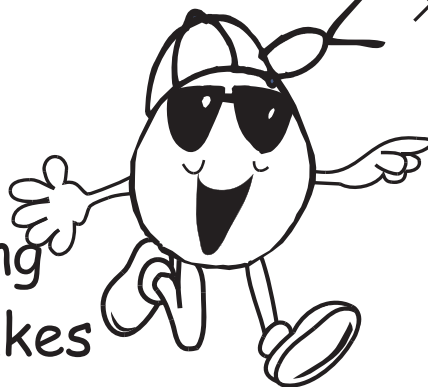
$$4 \times 4 =$$

$$3 \times 4 =$$

$$4 \times 3 =$$

$$2 \times 10 =$$

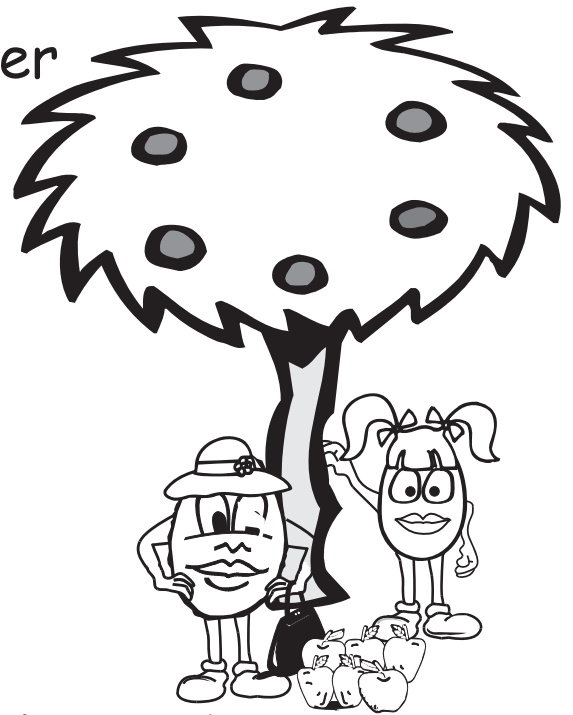
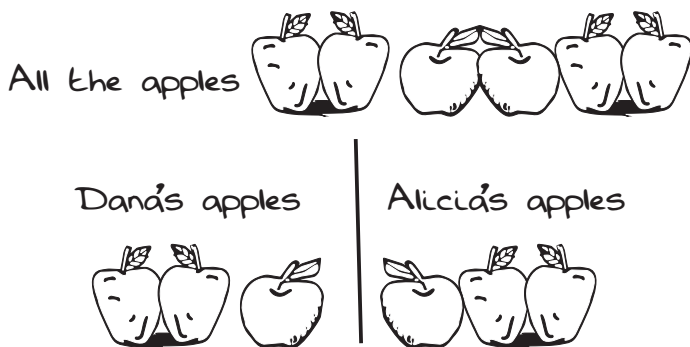
Hey B.J. - knowing multiplication makes you one cool dude.



Division

with Dana Divisor.

There are 6 apples. Let's give Dana & Alicia the same number of apples each.

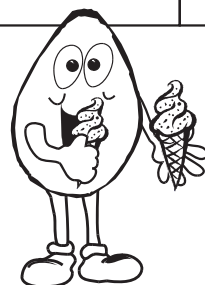


6 apples divided by 2 = 3 apples each.

$$6 \div 2 = 3$$

8 ice-creams divided by 4 = 2 ice-creams each.

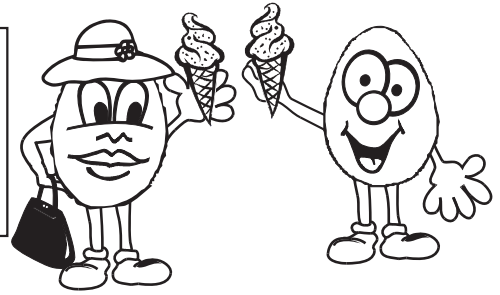
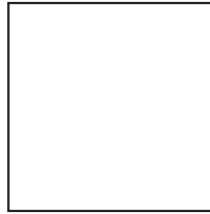
$$8 \div 4 = 2$$



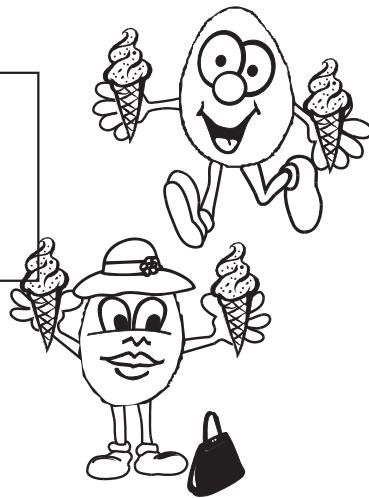
How many ice creams do we get?



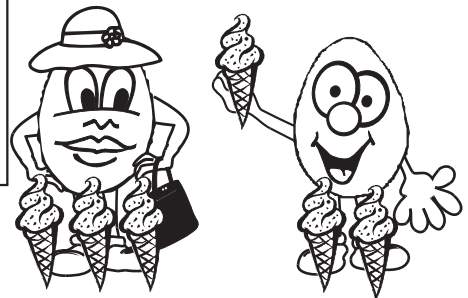
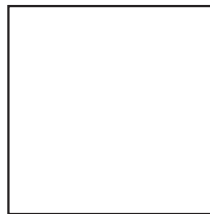
$$2 \div 2 = \square$$



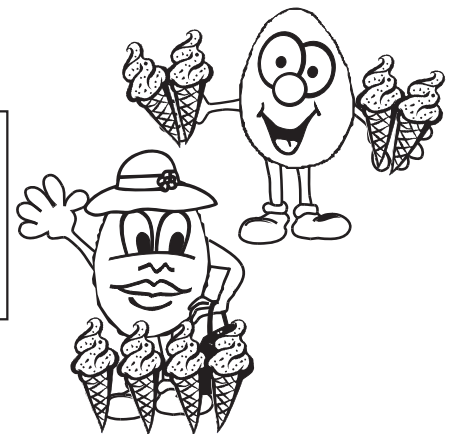
$$4 \div 2 = \square$$



$$6 \div 2 = \square$$



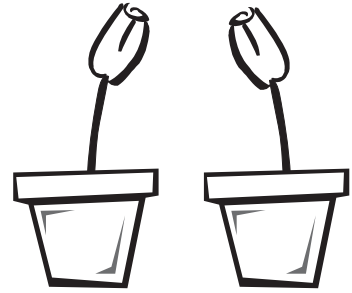
$$8 \div 2 = \square$$



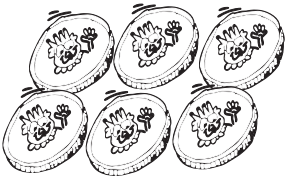
Fill in the missing spaces.



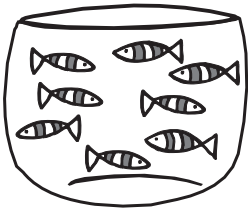
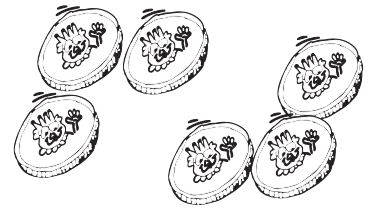
$$2 \div 2 =$$



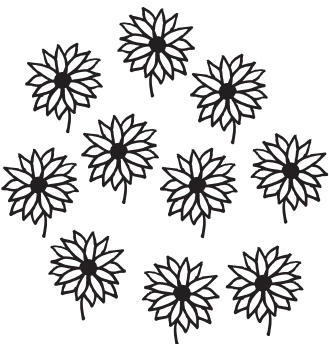
$$4 \div 2 =$$



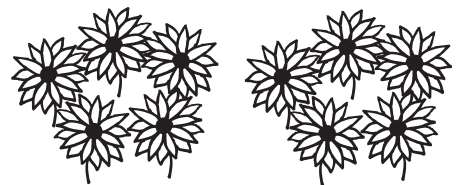
$$6 \div 2 =$$



$$8 \div 2 =$$

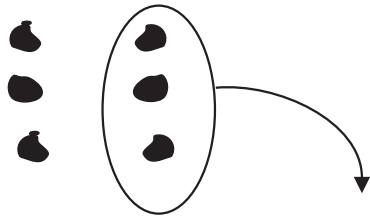


$$10 \div 2 =$$

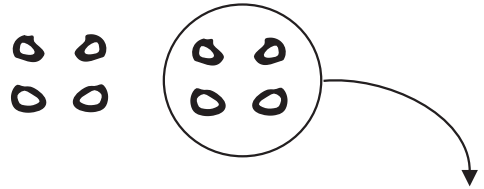




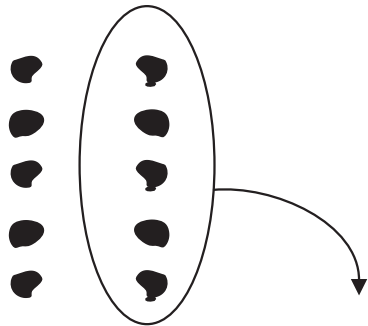
Here comes Dana Divisor.
She is driving by to check
that you know your division.



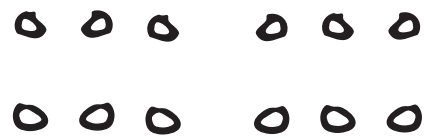
$$6 \div 2 = 3$$



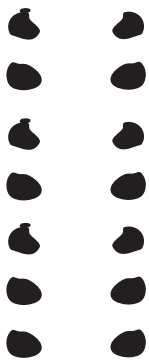
$$8 \div 2 =$$



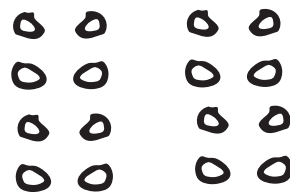
$$10 \div 2 =$$



$$12 \div 2 =$$

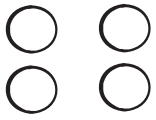


$$14 \div 2 =$$

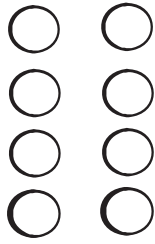


$$16 \div 2 =$$

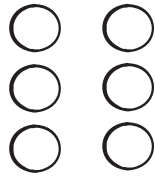
Divide each number by 2.



4



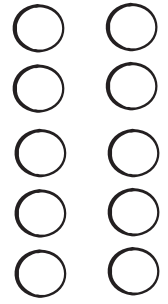
8



6



2



10

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Can you remember how to do these divisions?

$$4 \div 2 =$$

$$8 \div 2 =$$

$$6 \div 2 =$$

$$2 \div 2 =$$

$$10 \div 2 =$$

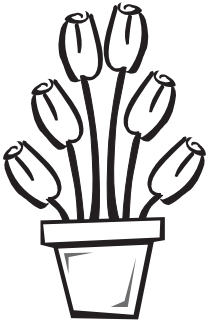


Dana has just found two presents and doesn't have to share them with anybody else!

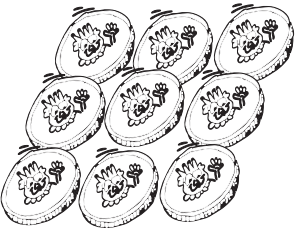
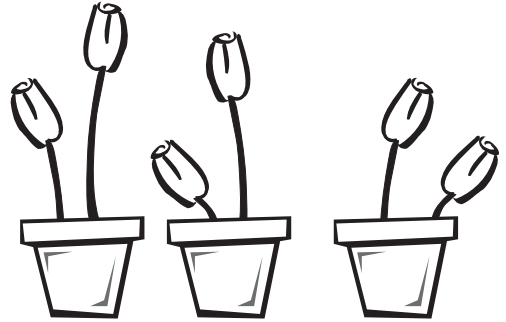
Fill in the missing spaces.



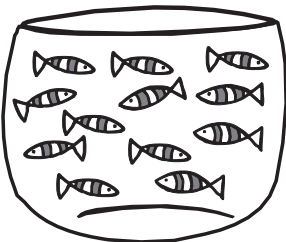
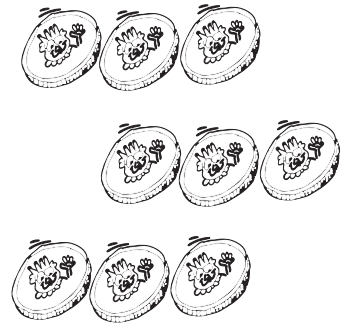
$$3 \div 3 =$$



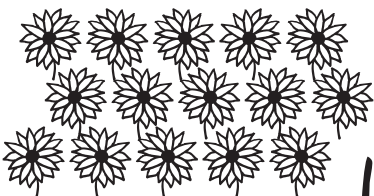
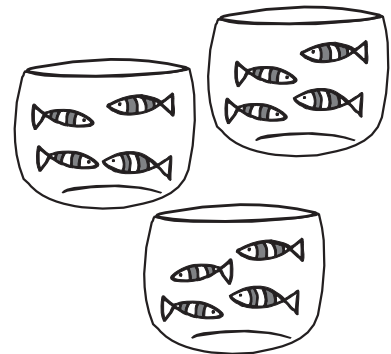
$$6 \div 3 =$$



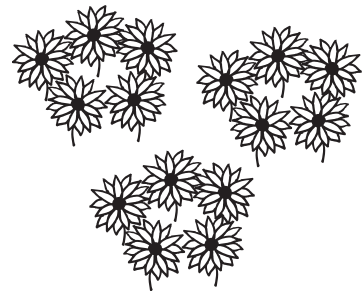
$$9 \div 3 =$$

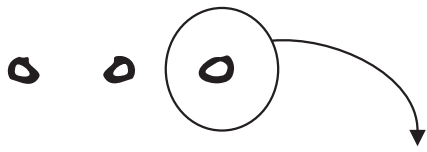


$$12 \div 3 =$$

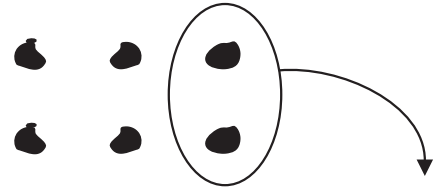


$$15 \div 3 =$$

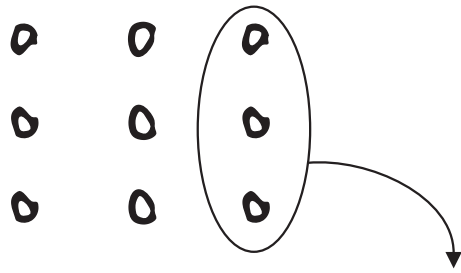




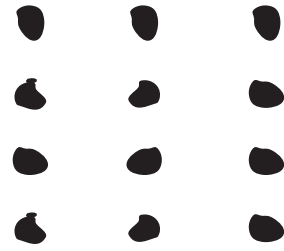
$$3 \div 3 =$$



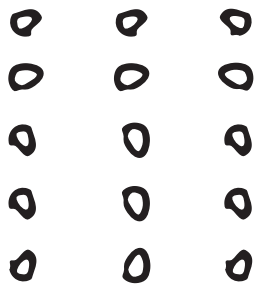
$$6 \div 3 =$$



$$9 \div 3 =$$



$$12 \div 3 =$$



$$15 \div 3 =$$


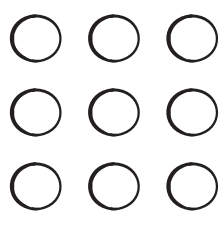
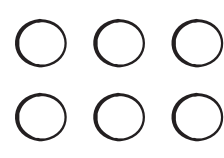
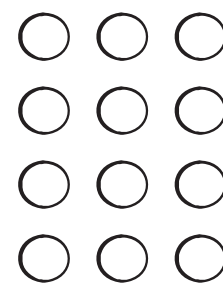


$$18 \div 3 =$$



Dana is at the gym getting fit for all this division.

Divide each number by 3.

| | | | |
|---|---|--|---|
|  |  |  |  |
| 3 | 9 | 6 | 12 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Can you remember how to do these divisions?

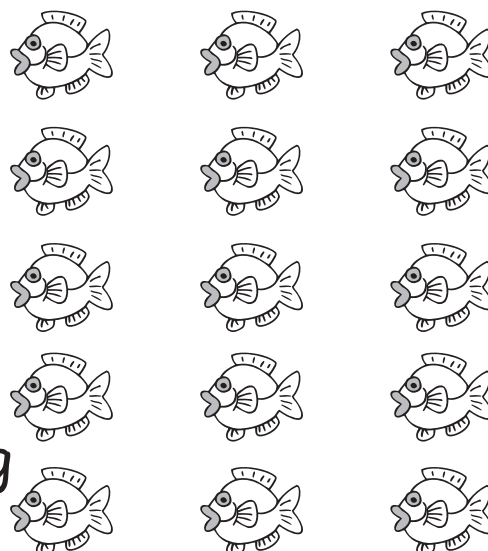
$12 \div 3 =$

$9 \div 3 =$

$6 \div 3 =$

$3 \div 3 =$

$15 \div 3 =$

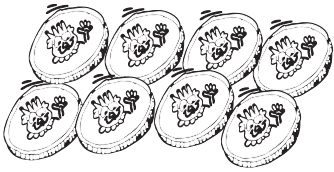


These fish have no problems with this page of division. They have learnt by swimming in schools of three.

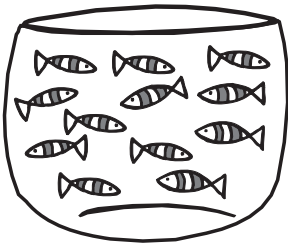
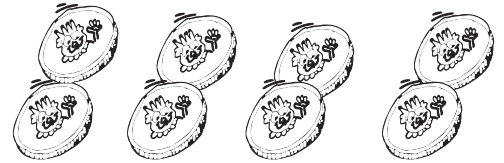
Fill in the missing spaces.



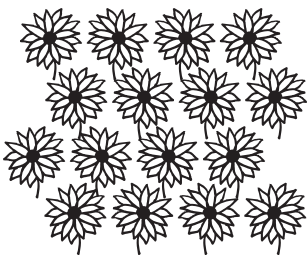
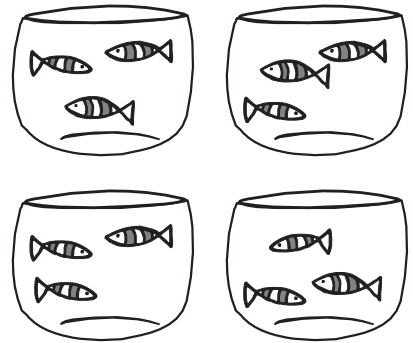
$$4 \div 4 =$$



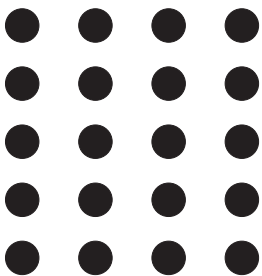
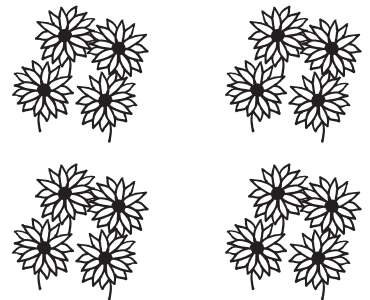
$$8 \div 4 =$$



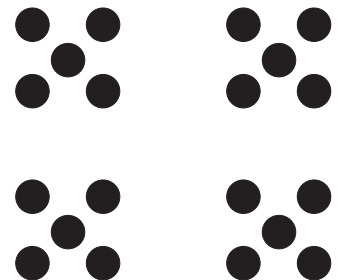
$$12 \div 4 =$$



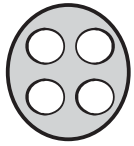
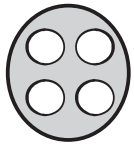
$$16 \div 4 =$$



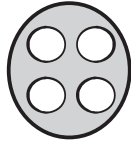
$$20 \div 4 =$$



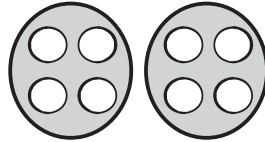
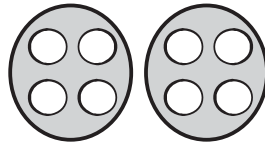
Divide each number by 4.



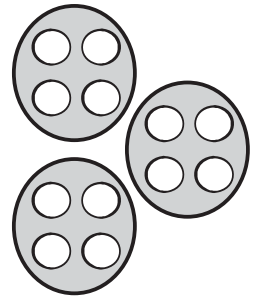
8



4



16



12

Can you remember how to do these divisions?

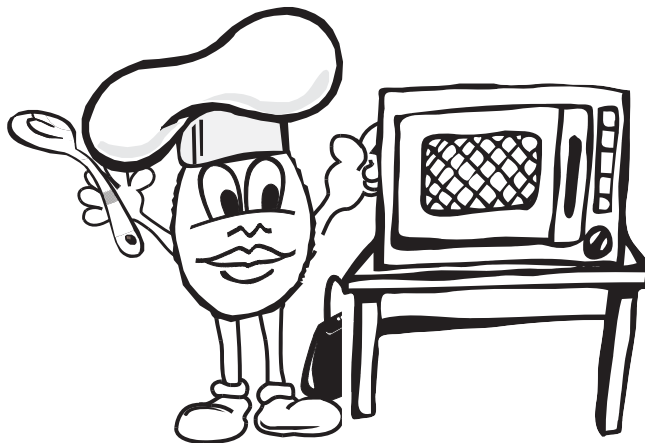
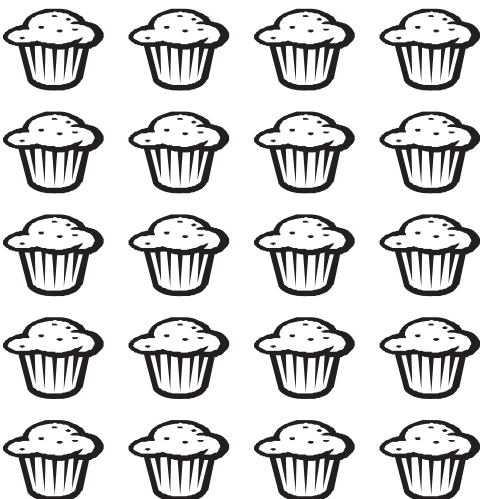
$$12 \div 4 =$$

$$8 \div 4 =$$

$$4 \div 4 =$$

$$16 \div 4 =$$

$$20 \div 4 =$$



Dana has cooked up these muffins and placed them into 4 stacks to help you with your division.

Put the correct sign into the box.

÷ or × ?

$6 \square 2 = 3$

$4 \square 3 = 12$

$3 \square 2 = 6$

$4 \square 2 = 2$

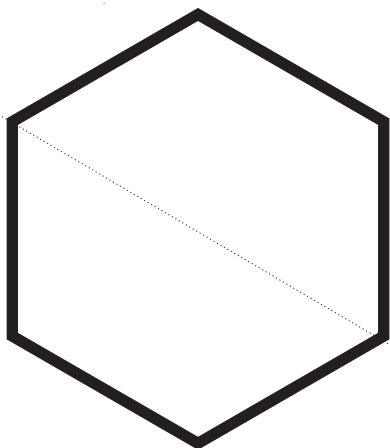
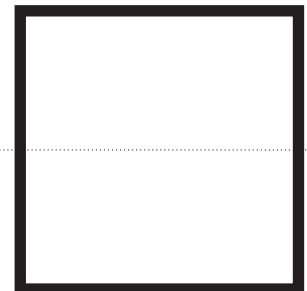
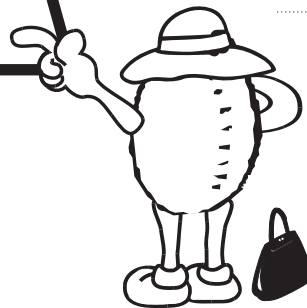
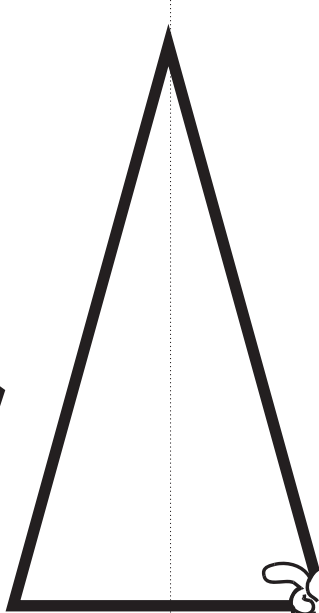
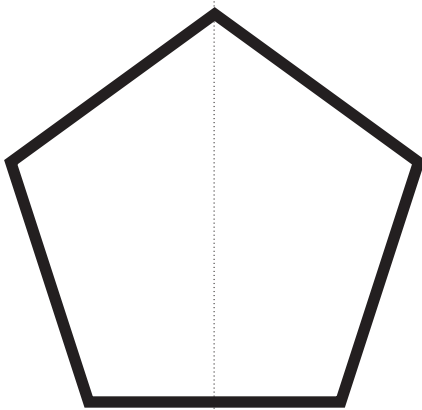
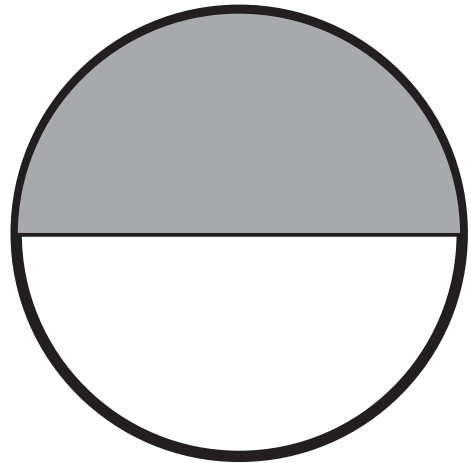
$8 \square 2 = 4$

$5 \square 2 = 10$



B.J. has come along to play the music to his latest production.

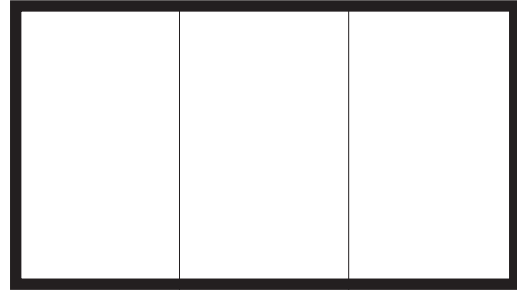
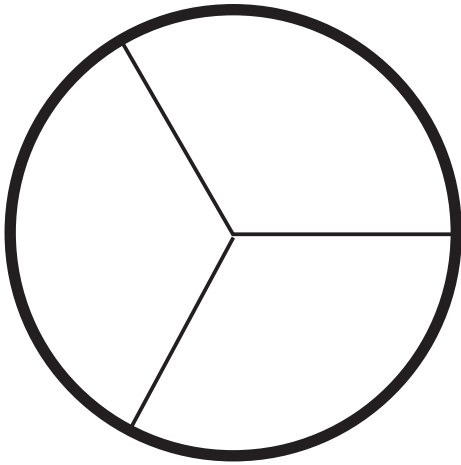
Let's color half of each shape. The circle has been done for you.



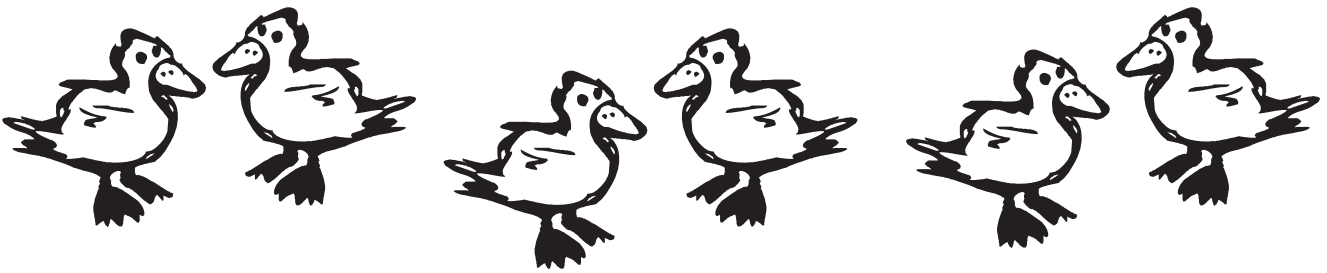
Dana reckons that this page will be very colorful - just like a fireworks display.

One half is written $\frac{1}{2}$

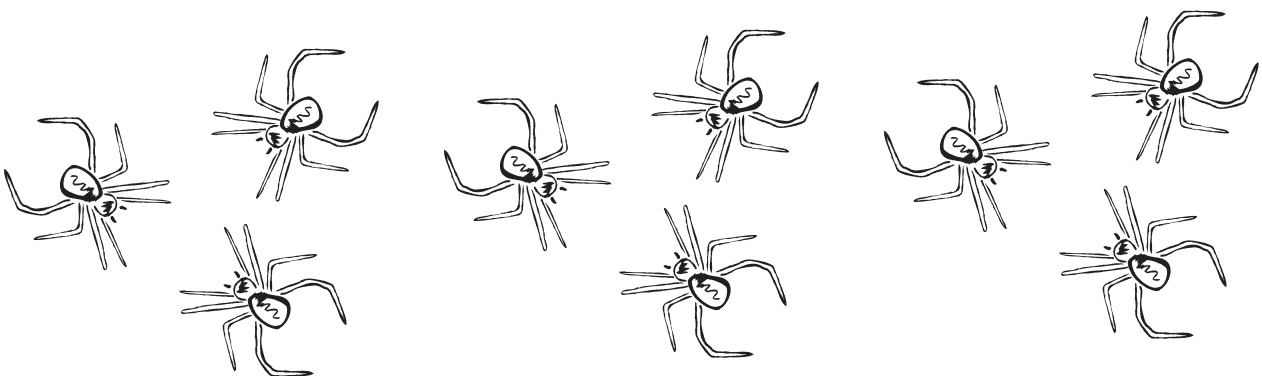
Color in one third of the circle and one third of the rectangle.



Color in one third of the ducks.

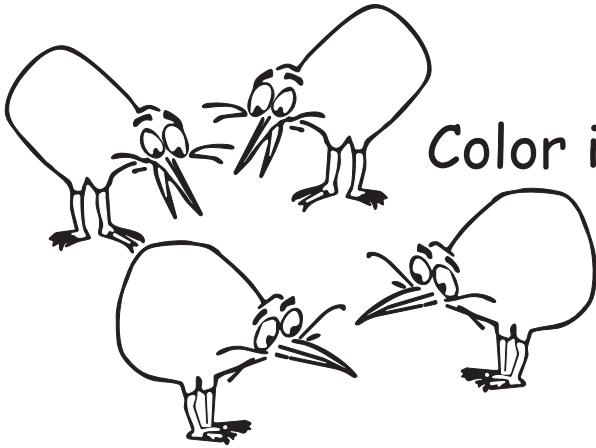
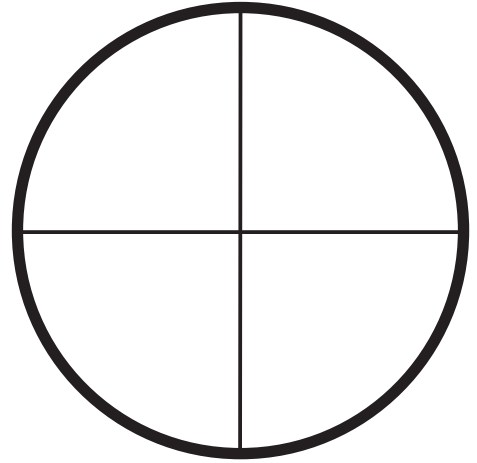
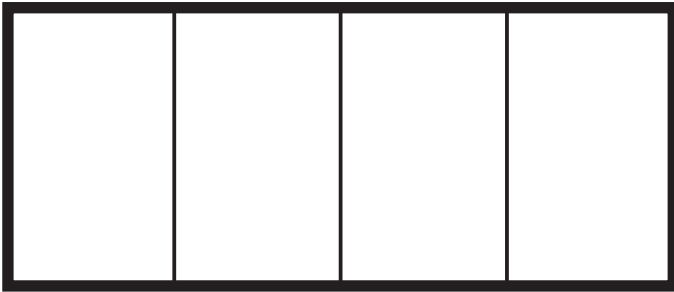


Circle one third of the spiders.



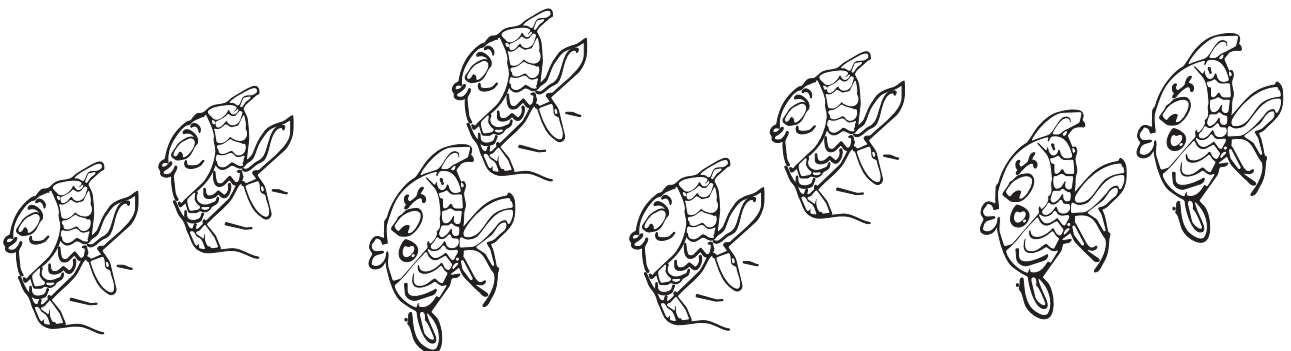
One third is written $\frac{1}{3}$

Color in one quarter of the circle and one quarter of the rectangle.




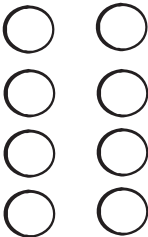
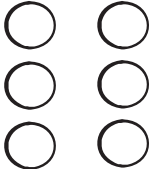
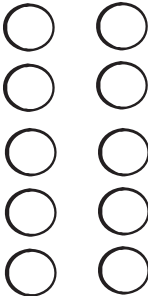
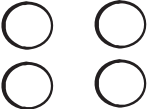
Color in one quarter of the kiwis.

Color in one quarter of the fish.


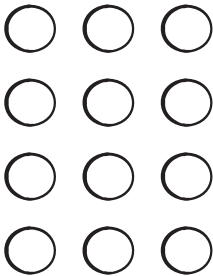
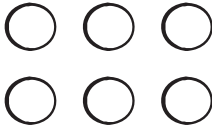
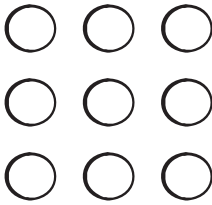


One quarter is written $\frac{1}{4}$

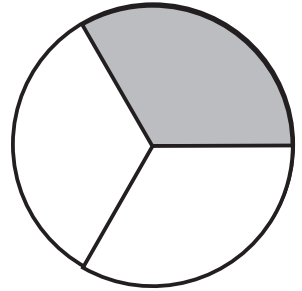
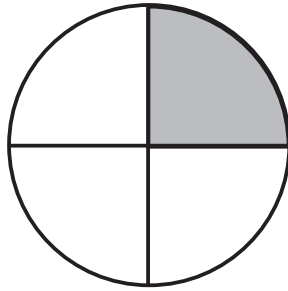
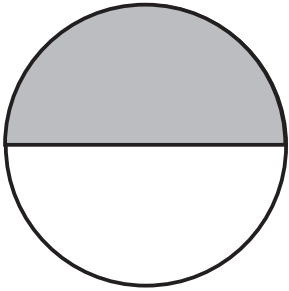
Find half of each number.

| | | | | |
|---|---|---|--|---|
|  |  |  |  |  |
| 2 | 8 | 6 | 10 | 4 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

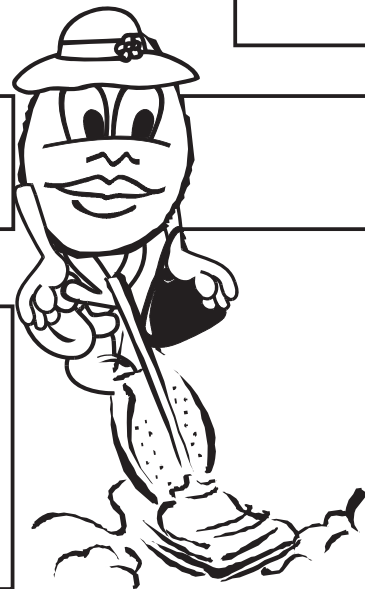
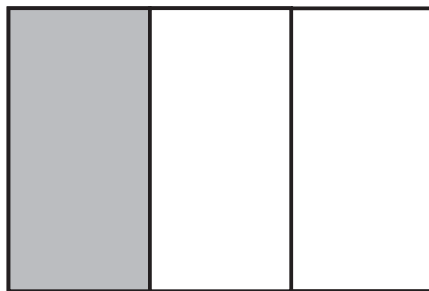
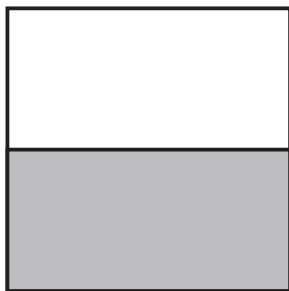
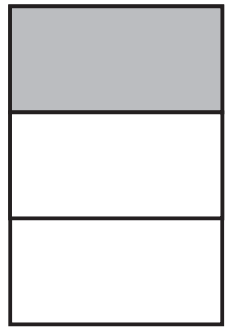
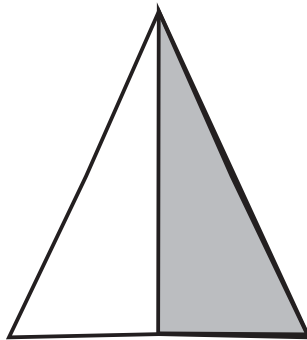
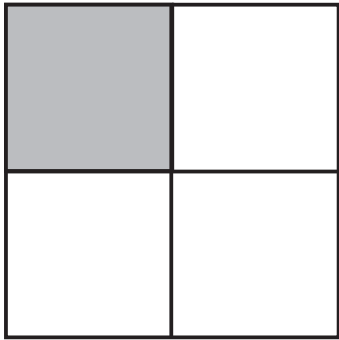
Find one third of each number.

| | | | |
|---|---|--|---|
|  |  |  |  |
| 3 | 12 | 6 | 9 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

What fraction is shaded?



Half $\frac{1}{2}$



Dana is cleaning up the bits and pieces left from all those fractions.

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BOOK 4

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