A Backward Truckie?

Rae Rees set some kind of record back in 1926 when he backed his 2 tonne truck for 35 kilometres. To find out the circumstances of this strange feat;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**

1. 37^0 x^0

2. 115^0 x^0 92^0

3. x^0 x^0

4. x^0 96^0 43^0 72^0

5. x^0 56^0 117^0

6. 34^0 x^0

7. 48^0 x^0 60^0

8. $3x^0$ 27^0

9. $6x^0$ 48^0

10. x^0 212^0

11. x^0+40^0

12. 72^0 x^0 108^0

13. x^0 153^0 x^0 x^0

14. x^0 98^0 102^0 132^0 101^0

15. x^0 x^0 120^0 x^0

16. 40^0 108^0 70^0 x^0+10^0

17. 88^0 42^0 x^0

18. 37^0 x^0

19. 162^0 x^0 84^0

20. 47^0 x^0 89^0

21. 32^0 47^0 x^0 51^0

Answer section

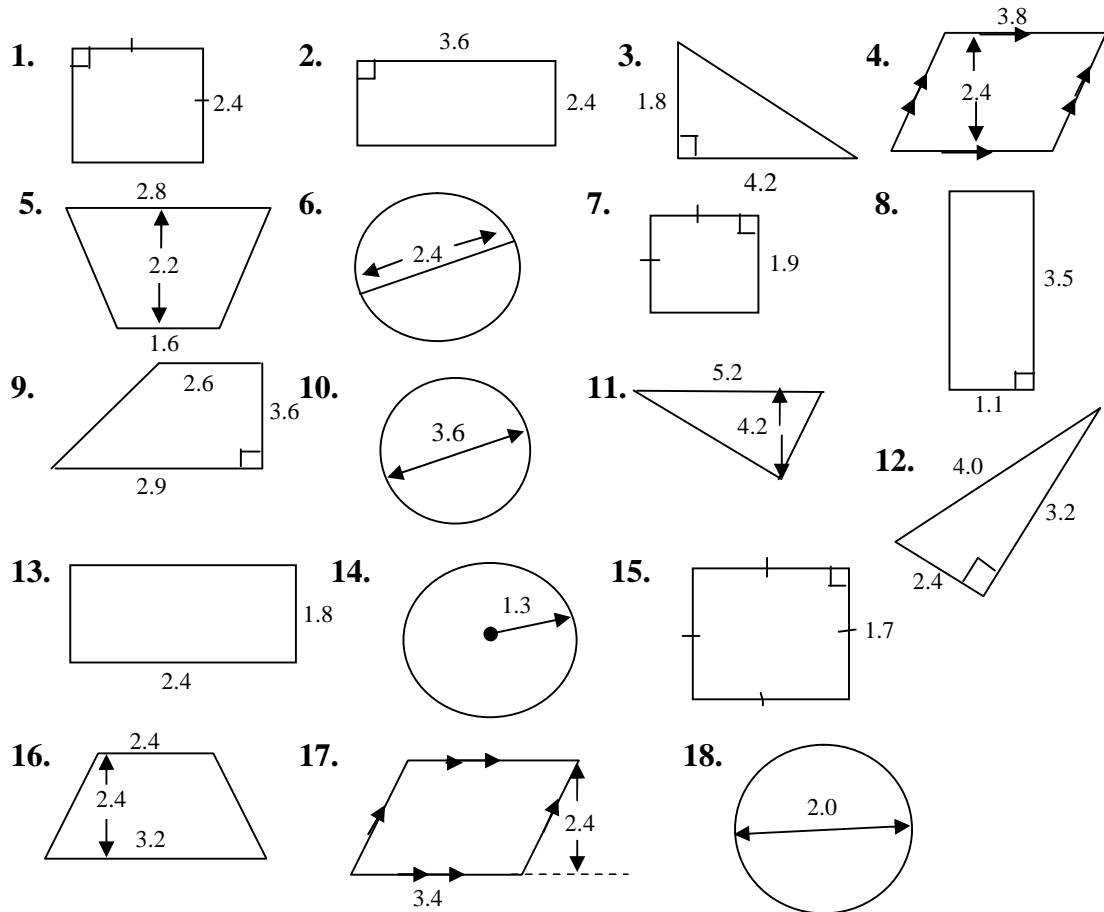|							
A.	50^0	**F.**	58^0	**L.**	45^0	**S.**	9^0
B.	36^0	**G.**	143^0	**N.**	73^0	**T.**	98^0
C.	84^0	**H.**	61^0	**O.**	23^0	**U.**	20^0
D.	22^0	**I.**	66^0	**P.**	53^0	**V.**	107^0
E.	44^0	**K.**	102^0	**R.**	99^0	**W.**	72^0
						Y.	110^0

5-20   5-17-9   16-2   9-20-3-21-6-20-13   17   3-2-17-9   2-10   18-21-13-9-20-13-8

7-5-21-4-5   7-20-13-20   16-2-2   3-2-14-18   10-2-13   2-14-20   16-13-11-4-19,

8-2   16-7-2   16-13-11-4-19-8   7-20-13-20   1-2-8-21-16-21-2-14-20-9   12-17-4-19

16-2   12-17-4-19,   16-5-20   18-21-13-9-20-13-8   7-20-13-20   3-2-17-9-20-9

17-14-9   7-5-21-3-20   17   10-13-21-20-14-9   9-13-2-6-20   10-2-13-7-17-13-9-8

13-17-20   13-20-6-20-13-8-20-9   16-5-20   7-5-2-3-20   7-17-15.

© *B*² Resources

A Non-Swimmer's Paradise ?

Lake Ellesmere, which is 32 kms south of Christchurch could easily be considered the safest lake in the country for swimming. To work out why;

- **Find the area of each figure below.**
- **Locate the answer in the Answer section.**
- **Transfer the appropriate letter to the code at the bottom of the page.**

Find the area of each figure. (all measurements are in metres) - Take $\pi = 3.1$

1. 2.4

2. 3.6 2.4

3. 1.8 4.2

4. 3.8 2.4

5. 2.8 2.2 1.6

6. 2.4

7. 1.9

8. 3.5 1.1

9. 2.6 3.6 2.9

10. 3.6

11. 5.2 4.2

12. 4.0 3.2 2.4

13. 1.8 2.4

14. 1.3

15. 1.7

16. 2.4 2.4 3.2

17. 3.4 2.4

18. 2.0

Answer section. (All answers in sq. metres)

A.	3.84	K.	4.84	P.	6.72	U.	10.044
D.	3.78	L.	8.64	R.	3.85	V.	9.12
E.	4.464	M.	8.16	S.	5.239	W.	4.32
I.	3.1	N.	2.89	T.	10.92	Y.	3.61
J.	5.76	O.	9.9				

12-11   18-11-14   3-6-6-16-6-14-11   16-9-18-15-11,   2-12-5-6

6-2-2-6-14-17-6-8-6   18-14   9-15-2-7   1-10-14-11   9-4-6-8   11-13-9

17-6-11-8-6-14   3-6-6-16.

Airmail

The first "airmail" in the world went into operation on the 14th May 1897 between Great Barrier Island and Auckland city. To find out more about this airmail service;

- Work out the answers to each of the problems below.
- Locate the answer in the Answer section.
- Transfer the appropriate letter to the code at the bottom of the page.

1. (-5) + (-3)	11. (-3) + (-4) - (-2)
2. (-5) - (-2)	12. (-6) - (-4) + 4
3. (-4) + 3	13. (-4) - (-4) + (-2)
4. (-2) - (-3)	14. (-3) + (-4) + (-2)
5. 3 - (-6)	15. (-1) + 2 - (-4)
6. (-3) - (-6)	16. (-4) + (-3) + 1
7. 5 - (-3)	17. (-4) + 4 + (-4)
8. 6 + (-2)	18. (-3) + (-3) + 9 + 3
9. (-8) - 3	19. 5 - 11 + (-1)
10. 6 - (-5)	

Answer section

A.	-11	H.	8	N.	6	T.	-5
D.	-4	I.	1	O.	2	U.	-3
E.	3	K.	-6	P.	-7	W.	-1
F.	11	L.	-2	R.	4	Y.	-8
G.	5	M.	9	S.	-9		

11-8-9-4-18-6-17   19-4-15-6-12-18-14   10-13-6-3   11-7-6   12-18-6

7-2-18-17-8-6-17   16-4-13-12-5-6-11-8-6-14   3-4-11-7   5-6-14-14-9-15-6-14

11-4-6-17   11-12   11-7-6-4-8   13-6-15-14.   9   1-6-9-8   13-9-11-6-8

11-7-4-14   19-4-15-6-12-18-15-8-9-5   3-9-14   4-14-14-2-6-17   3-4-11-7

4-11-14   12-3-18   14-11-9-5-19-14.

As is - Where is

In 1979 the Justice Department advertised for "as is - where is" buyers for a fishing boat called the *Ruptured Duck*. However there was a problem. To find out what the problem was;

- **Factorise each of the expressions below.**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**

1. $2a + 6b$

2. $3a - 6b$

3. $9a^2 + 4a$

4. $6x - 3y$

5. $6x^2 - 3x$

6. $2xy - 3x$

7. $3x + 6y + ax + 2ay$

8. $3a^2 - 4a + 3ab - 4b$

9. $ax + ay + bx + by$

10. $2ab - 3b - 2a + 3$

11. $a^2 + a - 6$

12. $x^2 + x - 12$

13. $x^2 - 5x - 14$

14. $a^2 + 5a - 14$

15. $a^2 - 8a + 12$

16. $x^2 - 2x - 3$

17. $a^2 - a - 6$

18. $x^2 - 2x - 15$

19. $x^2 - y^2$

20. $4a^2 - 9b^2$

Answer section

A. $(b-1)(2a-3)$ F. $(x-7)(x+2)$ N. $(a-3)(a+2)$ T. $(3+a)(x+2y)$
B. $(a+7)(a-2)$ H. $(2a-3b)(2a+3b)$ O. $3(2x-y)$ U. $3(a-2b)$
C. $(x+4)(x-3)$ I. $(x-5)(x+3)$ P. $2(a+3b)$ W. $(a+3)(a-2)$
D. $(a+b)(3a-4)$ K. $x(2y-3)$ R. $(a-6)(a-2)$ X. $(x-3)(x+1)$
E. $a(9a+4)$ L. $(a+b)(x+y)$ S. $3x(2x-1)$ Y. $(x-y)(x+y)$

2-17-13-4-15-7-2-17-10-7-3-9-19   7-20-3   15-2-1-7-2-15-3-8   8-2-12-6   5-10-17-6

4-13-13   14-10-17-6-5   1-3-17-18-17-5-2-9-10   7-20-10-7   19-3-10-15   10-17-8

7-20-3   12-10-7-12-20   11-10-5   7-20-10-7   17-4-14-4-8-19   6-17-3-11

3-16-10-12-7-9-19   11-20-3-15-3   7-20-3   14-4-10-7   11-10-5.

Downhill Birds

All New Zealanders are familiar with the flightless kiwi, even if few have actually seen one. Two other native birds are also nearly flightless. To find out what they are and an interesting fact about them;
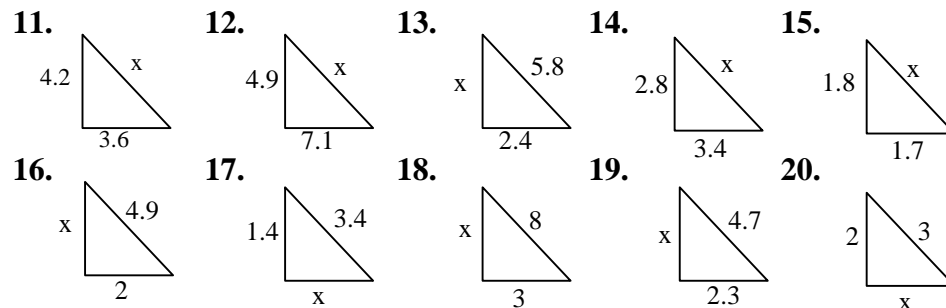
- **Work out the answers to each of the problems below**
- **Find the answer in the answer section**
- **Transfer the appropriate letter to the coded section at the bottom of the page.**

(Round all of your answers to 2 decimal places)

1. **What is the length of the diagonal of a square with side length 3.2 cms?**
2. **What is the square root of 3.4 ?**
3. **If a = 2.4, b = 5.6 and $c^2 = a^2 + b^2$, find c**
4. **A right angled triangle has a hypotenuse of length 5.6 metres and one side of length 3.4 metres. What is the length of the third side ?**
5. **What is the length of the longest knitting needle that will fit into a box 20cms by 8 cms by 4 cms ?**
6. **Find the square root of 7**
7. **A rectangle is 4.6 metres long and 2.8 metres wide. How long is its diagonal ?**
8. **If x = 7, y = 9 and $x^2 + y^2 = z^2$, find z.**
9. **What is $\sqrt{155}$?**
10. **Find the length of the diagonal of a square of side length 6.2 cms**

Find the value of x in questions 11 to 20.

11. **12.** **13.** **14.** **15.**

4.2 | x   4.9 | x   x | 5.8   2.8 | x   1.8 | x
3.6   7.1   2.4   3.4   1.7

16. **17.** **18.** **19.** **20.**

x | 4.9   1.4 | 3.4   x | 8   x | 4.7   2 | 3
2   x   3   2.3   x

Answer Section

A. 12.45	E. 8.63	I. 4.40	N. 4.47	S. 4.10
B. 5.53	F. 5.28	K. 11.40	O. 2.48	T. 7.42
C. 21.91	G. 6.09	L. 2.65	P. 4.45	U. 4.53
D. 5.39	H. 8.77	M. 3.10	R. 1.84	W. 2.24

11-15-18-10   18-10-12   12-16-7-9-16-3-12-2-12-7   8-9-8-9-4-15   9-16-7

18-10-12   8-15-8-9-8-15   5-6-14-17-11   15-2   10-15-4   1-4   18-2-12-12-19

14-16   15-2-7-12-2   18-15   3-6-14-7-12   15-16   18-10-12-14-2

14-16-12-13-13-14-5-14-12-16-18   20-14-16-3-19.

© B^2 Resources

Deer Capture

Deer recovery by helicopter has become quite a common sight in New Zealand. However, man with all his machinery and expertise doesn't always come out on top. This was especially the case on February 14th 1978. To find out what happened on this day;

- **Work out the answers to each problem below**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**

If $a = 3,\ b = 2,\ \text{and}\ c = 5$, find the value of each of the following.

1.	$3a^2 + b$	**9.**	$c^2 - a(b + c)$	**16.**	$2b^2 + a^2 - 3c$
2.	$2a^2 - c$	**10.**	$2a^2 + 3b^2$	**17.**	$2(c^2 - a) - 3(b^2 + a)$
3.	$2a^2 + b^2$	**11.**	$2c^2 - a^2$	**18.**	$3a(b^2 + c)$
4.	$a^2 + b^2 + c^2$	**12.**	$3b + 2(a^2 - b)$	**19.**	$2a(a^2 + b)$
5.	$c^2 - a^2$	**13.**	$3c^2 - 2a(b + a)$	**20.**	$2a + b + c - 2b^2$
6.	$3(a - b)$	**14.**	$4c^2 - 3a^2$	**21.**	$3c^2 - b + a$
7.	$3(a^2 + b)$	**15.**	$b^2 + c^2 - 2a^2$	**22.**	$2a^2 + c^2 - 3b^2$
8.	$3a + b(a + c)$				

Answer section

A.	11	**H.**	4	**N.**	31	**U.**	38
C.	13	**I.**	73	**O.**	3	**V.**	30
D.	45	**J.**	23	**P.**	20	**W.**	33
E.	16	**K.**	22	**R.**	66	**Y.**	76
F.	81	**L.**	2	**S.**	5		
G.	29	**M.**	25	**T.**	41		

6-22   11-9-14-20   13-15-21,   14-22   11-9-5   16-14-22-13-14-20   12-15-20-20

15-19-5-15   15   13-5-5-19   17-4-8-12-5-13   6-22-11-6   11-9-5   20-3-14-13-20

6-18   15   9-5-16-14-2-6-12-11-5-19   15-22-13   3-14-2-3-5-13   14-11

2-15-4-20-14-22-1   14-11   11-6   18-16-14-12   6-10-5-19.   11-9-5   18-6-19-11-21

11-9-6-4-20-15-22-13   13-6-16-16-15-19   8-15-2-9-14-22-5   7-15-20   15

7-19-14-11-5   6-18-18.   11-9-5   13-5-5-19   5-20-2-15-12-5-13.

Earthquake

Although the Napier earthquake in 1931 was New Zealand's worst on record with over 250 people killed, it is not the strongest recorded quake we have had. To find out about a bigger quake;

- **Solve each quadratic equation below.**
- **Locate the answer in the Answer section.**
- **Transfer the appropriate letter to the coded answer at the bottom of the page.**

1.	$x^2 + x - 6 = 0$		**13.**	$x^2 - x - 6 = 0$
2.	$x^2 - 3x + 2 = 0$		**14.**	$x^2 + 5x - 14 = 0$
3.	$x^2 - 4x + 3 = 0$		**15.**	$x^2 - 2x - 8 = 0$
4.	$x^2 - 1 = 0$		**16.**	$x^2 - 7x + 12 = 0$
5.	$x^2 - x - 2 = 0$		**17.**	$x^2 - 8x + 15 = 0$
6.	$x^2 - 2x - 3 = 0$		**18.**	$x^2 - 9x + 18 = 0$
7.	$x^2 + 3x + 2 = 0$		**19.**	$x^2 + 7x + 12 = 0$
8.	$x^2 + 4x + 3 = 0$		**20.**	$x^2 - x - 12 = 0$
9.	$x^2 - 5x + 6 = 0$		**21.**	$x^2 - 3x - 18 = 0$
10.	$x^2 - 6x + 8 = 0$		**22.**	$x^2 + x - 12 = 0$
11.	$x^2 + 5x + 6 = 0$		**23.**	$x^2 + 2x - 15 = 0$
12.	$x^2 + 2x - 8 = 0$		**24.**	$x^2 + 3x - 18 = 0$

Answer section

A.	2,3	**G.**	-3,4	**M.**	3,4	**T.**	-2,4
B.	-3,-4	**H.**	-1,1	**N.**	1,2	**U.**	2,-7
C.	3,5	**I.**	-2,-3	**O.**	-1,3	**V.**	-1,-2
D.	3,-6	**J.**	-3,2	**Q,**	2,-4	**W.**	3,-4
E.	3,-5	**K.**	-1,-3	**R.**	3,6	**Y.**	2,4
F.	-2,3	**L.**	-1,2	**S.**	1,3	**Z.**	-3,6

15-4-23   19-11-20-20-23-3-15   2-23-22   21-23-9-5-9-2-24

23-9-18-15-4-12-14-9-8-23   11-2   4-11-3-15-6-18-11-17-9-5   15-11-16-23-3

22-9-3   15-4-23   22-23-5-5-11-2-20-15-6-2   23-9-18-15-4-12-14-9-8-23   11-2

1-9-2-14-9-18-10   23-11-20-4-15-23-23-2   13-11-13-15-10   13-11-7-23   22-11-15-4

9   16-9-20-2-11-15-14-24-23   6-13   9-19-6-14-15   23-11-20-4-15   6-2   15-4-23

18-11-17-4-15-23-18   3-17-9-5-23.

© B^2 Resources

Famous First

There have been many famous firsts in new Zealand. Timothy O'Meara of Wellington would probably rather forget his. To find out why;

- Work out the answer to each problem below.
- Locate the answer in the Answer section
- Transfer the appropriate letter to the code at the bottom of the page.

1. $(-2) \times (-5)$
2. $(+3) \times (-4)$
3. $(-12) \div (-2)$
4. $(+4) \div (-1)$
5. $(-5) \times (-6)$
6. $(+5) \times (-3)$
7. $(-12) \div (+4)$
8. $(-20) \div (-4)$
9. $(+30) \div (-6)$
10. $(+6) \times (-4)$
11. $(-3) \times (+6)$

12. $(-4)^2$
13. $(-2)^3$
14. $(-2) \times (+3) \times (-4)$
15. $(-6) \div (-2) \div (+3)$
16. $(+5) \times (-2) \times (+3)$
17. $(-6) \times (-4) \times (-2)$
18. $(+48) \div (-4) \div (-3)$
19. $(+3) \times (-6) \div (-9)$
20. $(-8) \times (-3) \div (-12)$
21. $(-2)^2 \times (-4)$
22. $(-2)^3 \div (-4) \times (-3)$

Answer section

A.	-5	G.	1	P.	-16	V.	-48
B.	30	H.	-8	Q.	10	W.	4
C.	-3	I.	5	R.	6	Y.	-4
D.	-12	L.	2	S.	-2	Z.	-30
E.	16	N.	24	T.	-24		
F.	-18	O.	-6	U.	-15		

8-14   12-8-15-13-10-12-12-14   11-22-3-10-4   11-8-17-12   13-12

18-9-20   3-12-20-21-22-14-20-8-5-19-12   11-22-3   10-13-12

12-9-3-19-8-12-20-10   3-12-7-22-3-2-12-2   11-22-3-15-12-3-4

22-11   9   14-12-18   16-12-9-19-9-14-2   14-22-10-12,   (11-8-17-12

21-22-6-14-2).   13-12   18-9-20   20-6-5-20-12-1-6-12-14-10-19-4

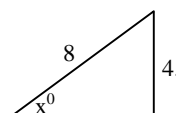20-12-14-10-12-14-7-12-2   10-22   10-12-14   4-12-9-3-20   8-14

21-3-8-20-22-14.

© B² Resources
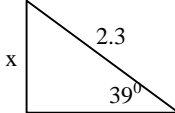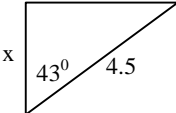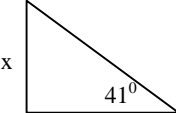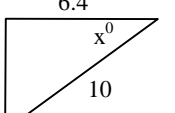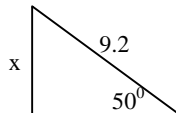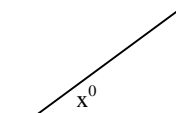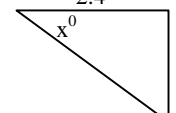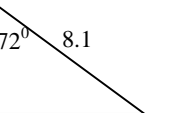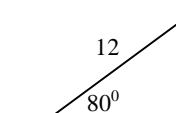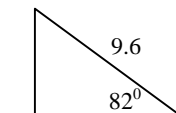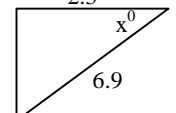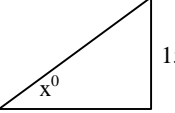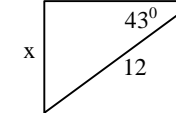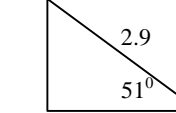
Hairy Sheep.

The Drysdale, named after Dr F.W.Dry of Massey University, is prized for the hairs which are present in its fleece. Dr Dry isolated the relevant genetic factor for the hair. To find out more about the Drysdale and why its fleece is highly prized;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section**
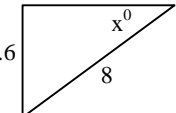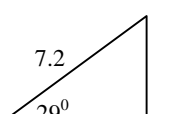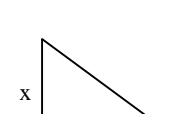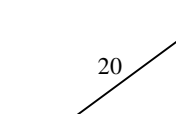- **Transfer the appropriate letter to the code at the bottom of the page.**

1.

2.3, x, 39^0

2.

x, 43^0, 4.5

3.

x, 41^0, 3.6

4.

8, 4.8, x^0

5.

6.4, x^0, 10

6.

9.2, x, 50^0

7.

3.6, x^0, 9

8.

2.4, x^0, 4.8

9.

72^0, 8.1, x

10.

12, 80^0, x

11.

9.6, 82^0, x

12.

2.3, x^0, 6.9

13.

15, x^0, 12

14.

43^0, x, 12

15.

2.9, 51^0, x

16.

x^0, 3.6, 8

17.

7.2, 29^0, x

18.

x, 61^0, 4.8

19.

20, x^0, 15

Answer section.
(Note - All answers have been rounded to 3dp for lengths and 1dp for angles)

A. 6.297	**E.** 3.291	**L.** 21.8^0	**P.** 1.447	**U.** 26.7^0
B. 7.048	**F.** 1.825	**M.** 50.2^0	**R.** 2.503	**V.** 8.184
C. 51.3^0	**H.** 8.659	**N.** 3.129	**S.** 36.9^0	**W.** 1.336
D. 11.818	**I.** 41.4^0	**O.** 70.5^0	**T.** 63.4^0	

19-8   19-4   6-2-7-19-2-14-2-10   8-18-17-8   18-2   19-3-8-2-3-10-2-10   8-12

6-9-2-2-10   19-8   12-16-8.   19-3-4-8-2-17-10   18-2   10-2-14-2-7-12-1-2-10   17

3-2-11   6-9-2-2-10   11-18-19-13-18   6-2-13-17-5-2   14-17-7-16-17-6-7-2   15-12-9

13-17-9-1-2-8   11-12-12-7.

Garston

The small South Island town of Garston, which lies about 11 kms South of Lake Wakatipu has an unusual distinction. To find out what it is;

- Find the images of the points below under the given transformations
- Locate the answer in the Answer section
- Transfer the appropriate letter to the code at the bottom of the page.

Note: It may help if you draw a set of axes and mark the points.

In this exercise; $R_{180} \to$ a half turn about the origin

$R_{90} \to$ a quarter turn (anticlockwise) about the origin

$M_x \to$ a reflection in the X axis

$M_y \to$ a reflection in the Y axis   and

$E \to$ an enlargement of scale factor 2

1.   (3,4) under M_x
2.   (5,2) under M_y
3.   (-2,2) under R_{180}
4.   (-4,2) under R_{90}
5.   (-5,-1) under M_x
6.   (3,0) under E, centre (0,0)
7.   (-1,-1) under M_y
8.   (4,-3) under E, centre (6,-3)
9.   (7,-3) under R_{90}
10.   (5,2) under R_{180}
11.   (-5,-1) under M_y

12.   (5,0) under E, centre (4,1)
13.   (-5,-5) under M_x
14.   (-4,8) under M_y
15.   (7,-6) under R_{180}
16.   (-5,-1) under E, centre (-6,-3)
17.   (5,2) under E, centre (3,0)
18.   (5,0) under M_x
19.   (4,-3) under M_y
20.   (3,0) under R_{90}
21.   (3,4) under E, centre (0,0)
22.   (5,2) under R_{90}

Answer section.

A.   (5,0)   G.   (3,7)   N.   (2,-2)   T.   (-2,5)
B.   (4,8)   H.   (6,8)   O.   (-5,2)   U.   (-4,-3)
C.   (5,-1)   I.   (6,0)   P.   (-5,-2)   W.   (6,-1)
D.   (-7,6)   K.   (2,-4)   R.   (7,4)   Y.   (-5,1)
E.   (2,-3)   L.   (3,-4)   S.   (-5,5)   Z.   (-4,1)
F.   (0,3)   M.   (1,-1)

3-2   10-18-17-22   2-20   3-8-12   16-8-18-1-18-3-15   6-13   7-2-17-8   22-21-18-3

2-3-8   21-19-3-15-17-8-15   18-3-15   22-12-8-3-22-5   8-6-9-21-22   4-7-13   20-17-2-7

22-21-8   13-8-18.   9-18-17-13-22-2-3   21-18-13   22-21-8   15-6-13-22-6-3-11-22-6-2-3

2-20   14-8-6-3-9   22-21-8   20-19-17-22-21-8-13-22   13-8-22-22-1-8-7-8-3-22   20-17-2-7

13-18-1-22   12-18-22-8-17   6-3   22-21-8   11-2-19-3-22-17-5.

Kaiwhare

Kaiwhare, the taniwha of the Manukau Harbour, is sometimes recorded as inoffensive and sometimes as a noxious, spiteful creature, who terrified the local people with his misdeeds. To find out how the taniwha was given his name;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section.**
- **Transfer the appropriate letter to the coded answer at the bottom of the page.**

1.	87×56	7.	71×83	13.	28×43	19.	63×54
2.	42×39	8.	62×49	14.	69×17	20.	81×85
3.	27×83	9.	32×36	15.	48×22	21.	77×53
4.	64×17	10.	41×42	16.	53×27	22.	68×49
5.	81×54	11.	61×37	17.	63×33	23.	57×38
6.	43×62	12.	42×37	18.	43×72		

Answer section

A.	2257	G.	2666	N.	3332	U.	1722
B.	1152	H.	4374	O.	1638	V.	2166
C.	1554	I.	4081	P.	1204	W.	5893
D.	2079	K.	1173	R.	2241	X.	3402
E.	3096	L.	1431	S.	6885	Y.	4872
F.	3038	M.	1088	T.	1056		

8-21-20-5-18-3-4-18-22   7-2-10-16-17   22-2-15   17-11-3-18   18-4-9-11-3-14

2-22   11-22   18-19-13-18-17-21-15-21-2-22   7-21-15-5-2-10-15   20-18-22-17-21-22-6

11-22   2-8-8-18-3-21-22-6   15-2   14-11-21-7-5-11-3-18.   15-5-21-20

2-8-8-18-3-21-22-6   12-2-22-20-21-20-15-18-17   2-8   8-2-2-17   7-5-21-12-5

7-11-20   13-16-11-12-18-17   21-22   11   4-21-22-21-11-15-10-3-18   5-2-10-20-18

9-10-21-16-15   2-22   11   20-4-11-16-16   3-11-8-15   11-22-17   20-18-15

11-17-3-21-8-15   2-22   15-5-18   18-9-9   15-21-17-18.   21-15   7-11-20

11   6-2-2-17   2-4-18-22   11-22-17   8-21-20-5   7-2-10-16-17   9-18

13-16-18-22-15-21-8-10-16   21-8   15-5-18-3-18   7-11-20   22-2   20-21-6-22   2-8

15-5-18   3-11-8-15   22-18-19-15   4-2-3-22-21-22-6,   8-2-3   21-15

20-5-2-7-18-17   15-5-11-15   14-11-21-7-5-11-3-18   7-11-20   20-11-15-21-20-8-21-18-17

7-21-15-5   15-5-18   2-8-8-18-3-21-22-6.   8-3-2-4   15-5-21-20   12-18-3-18-4-2-22-1

14-11-21-7-5-11-3-18,   15-5-18   5-2-10-20-18   18-11-15-18-3,   3-18-12-18-21-23-18-17

5-21-20   22-11-4-18.

Long-winded

Arthur Beauchamp, a member of the Marlborough Provincial Council in the days when New Zealand was divided into six self-governing provinces, won the reputation as the nations most long-winded speaker. In a speech concerning whether or not Picton should remain the Provincial Capital and after ten and a half hours on his feet he declared …..

To find out just what he had to add;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**

Write in Standard form

1.	**34 500**	**2.**	**34.5**	**3.**	**0.00345**	**4.**	**345**
5.	**0.345**	**6.**	**3.45**	**7.**	**345 000**	**8.**	**3.45 million**

Write as ordinary numbers

9.	2.78×10^5	**10.**	2.78×10^3	**11.**	2.78×10^{-2}	**12.**	2.78×10^0
13.	2.78×10^{-1}	**14.**	2.78×10^1	**15.**	2.78×10^6	**16.**	2.78×10^{-3}

Round each of the numbers below to the given degree of accuracy.

17.	**23.567 to 2 dp**	**18.**	**2.3567 to 3 sig figs**	**19.**	**23.567 to 1 sig fig**
20.	**235.67 to 1 dp**	**21**	**23567 to 2 sig figs**	**22.**	**2.3567 to 3 dp**

Answer section.

A.	**2.36**	**H.**	**278 000**	**N.**	**2.78**	**T.**	**27.8**
B.	3.45×10^0	**I.**	**235.7**	**O.**	3.45×10^1	**U.**	3.45×10^6
C.	**0.0278**	**J.**	3.45×10^4	**P.**	**0.278**	**V.**	**0.00278**
D.	**24 000**	**K.**	**20**	**R.**	3.45×10^2	**W.**	3.45×10^5
E.	**2.357**	**L.**	3.45×10^{-1}	**S.**	**23.57**	**Y.**	**2 780 000**
F.	**2 780**	**M.**	3.45×10^{-3}				

" 18-10-14-22-4   14-9-22-17-22   10-22-7   13-4-22-5-20-3-20-12-18-4-15

4-22-3-18-4-19-17   20   7-20-5-5   12-2-7   13-4-2-11-22-22-21   14-2   17-13-22-18-19

**2-12   14-9-22   17-8-6-1-22-11-14   8-12-21-22-4   21-20-17-11-8-17-17-20-2-12. "**

6-8-14   9-20-17   16-2-20-11-22   10-18-20-5-22-21   9-20-3   18-12-21   9-22

11-2-5-5-18-13-17-22-21   18-10-14-22-4   12-22-18-4-5-15   22-5-22-16-22-12   9-2-8-4-17.

Mosses

New Zealand can lay claim to having both the largest and the smallest mosses in the world. The largest has the scientific name "DAWSONIA SUPERBA" which can grow to a height of 76 cms. To find out about the smallest moss in the world;

- **Work out the answer to each of the problems below.**
- **Find the answers in the Answer section.**
- **Transfer the appropriate letter to the coded answer at the bottom of the page.**
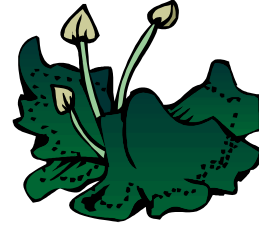
1.	$4x + 3y + x - 2x$	**11.**	$5y + 4x - y - 5x + 3x$
2.	$x + 2x + 3y + 2x - 2y$	**12.**	$5x + x + y - x + 2y - y$
3.	$2x + 3y + 3x + 2y - 4x - y$	**13.**	$x + 5x + 3y - 2x - 2y - 2x$
4.	$x + y + x + y + x - y$	**14.**	$3x + 4y + x - 2y - x + 2y$
5.	$2x + 2y + 3x - y - 4x$	**15.**	$x + x + 2x + 2y - 3x + y$
6.	$5x + 2x + 4y - 6x - 2y$	**16.**	$3x + 2y + 2x - y - x$
7.	$x + 3y + 2x + y + x - 2y$	**17.**	$7x + y - 2x + 3x + 3y - 4x$
8.	$3x + 3x + 4y - x - y$	**18.**	$x + 2x + 2y - y + x + 2y$
9.	$x + y + 2x + y - x$	**19.**	$3x + 2y - 2x + x + y$
10.	$4x - x + y + y$		

Answer section.

A.	$2x + 2y$	**G.**	$2x + 3y$	**N.**	$x + 2y$	**T.**	$x + y$
C.	$x + 3y$	**H.**	$2x + y$	**O.**	$4x + y$	**U.**	$4x + 3y$
D.	$3x + 3y$	**I.**	$4x + 2y$	**P.**	$3x + y$	**W.**	$4x + 4y$
E.	$x + 4y$	**L.**	$3x + 4y$	**R.**	$5x + 3y$	**Y.**	$2x + 4y$
F.	$3x + 2y$	**M.**	$5x + y$	**S.**	$5x + 2y$		

5 - 13 - 3   12 - 2 - 9 - 14 - 14 - 3 - 12 - 5   2 - 16 - 12 - 12   7 - 12

4 - 13 - 9 - 12 - 15 - 18 - 2   9 - 4 - 7 - 15 - 18 - 14 - 9 - 5 - 18 - 2

17 - 13 - 7 - 15 - 13   17 - 13 - 3 - 6   10 - 18 - 14 - 14 - 11   19 - 8 - 16 - 17 - 6

7 - 12   12 - 2 - 9 - 14 - 14 - 3 - 8   5 - 13 - 9 - 6   9   19 - 8 - 9 - 7 - 6

16 - 10   2 - 18 - 12 - 5 - 9 - 8 - 1   12 - 3 - 3 - 1.

© B^2 Resources

Mount Cook

Mount Cook not only lays claim to being the highest mountain in New Zealand at 3764 metres, but it also holds another dubious record. To find out what this record is;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**

1.	2.34 + 4.56 + 0.21	12.	5.32 - 4.85
2.	93.47 - 47.2	13.	27.4 × 3.6
3.	4.62 × 5.4	14.	4.2 × 8.7
4.	27.45 ÷ 9	15.	61.4 × 3
5.	32.4 + 4 + 0.63	16.	4.35 × 0.8
6.	48.2 + 3.71 + 23	17.	34.21 ÷ 11
7.	51.64 + 2.4 + 0.32	18.	109.2 ÷ 7
8.	4.17 + 2.3 + 3.61	19.	68.24 ÷ 8
9.	87.34 - 49.56	20.	21.42 ÷ 7
10.	54.21 - 8.37	21.	4.23 + 6.42 - 3.85
11.	124.2 - 83.64	22.	14.2 + 2.31 - 12.79

Answer Section

A.	37.78	I.	3.06	R.	24.948
B.	0.47	K.	7.11	S.	3.11
C.	54.36	L.	3.48	T.	74.91
D.	15.6	M.	36.54	U.	8.53
E.	184.2	N.	40.56	V.	37.03
F.	10.08	O.	6.8	X.	46.27
G.	3.05	P.	45.84	Y.	98.64
H.	3.72				

11-21-6   21-11-16-13   20-17   20-6   6-22-15   22-20-4-22-15-17-6,

12-19-6   20-6   20-17   9-16-17-21   6-22-15   14-21-17-6

18-9-11-4-15-3-21-19-17.   21-5-15-3   21-11-15   22-19-11-18-3-15-18

9-11-18   17-20-2-6-13   10-15-21-10-16-15   22-9-5-15   16-21-17-6

6-22-15-20-3   16-20-5-15-17   20-11   6-22-15   14-6   7-21-21-1

3-15-4-20-21-11   17-20-11-7-15   6-22-15   6-19-3-11   21-8   16-9-17-6

7-15-11-6-19-3-13.

New Zealand's First Jail.

The first place of detention in NZ was at Kororareka, now known as Russell. The residents formed a vigilante group and to restrain their captives they built a "jail" of sorts. To find out about this early jail;

- Work out the answers to each of the problems below.
- Locate the answer in the Answer section.
- Transfer the appropriate letter to the code at the bottom of the page.

1.	87.34 - 29.46	9.	65.4 - 37.91	17.	34.6 - 17.21
2.	429.3 - 87.94	10.	3.85 - 0.98	18.	423.86 - 275.95
3.	212.61 - 42.35	11.	612.43 - 425.7	19.	384.23 - 297.68
4.	72.48 - 19.4	12.	326.1 - 57.42	20.	43.7 - 18.92
5.	3.14 - 1.67	13.	912.5 - 737.42	21.	61.5 - 8.93
6.	5.87 - 3.92	14.	61.8 - 39.9	22.	204 - 37.16
7.	59.37 - 6.14	15.	48.34 - 27.36	23.	318 - 237.14
8.	512.31 - 387.29	16.	21.58 - 17.9		

Answer section

A.	86.55	G.	80.86	M.	1.95	T.	175.08
B.	341.36	H.	27.49	N.	186.73	U.	52.57
C.	20.98	I.	24.78	O.	268.68	V.	2.87
D.	53.23	J.	17.39	P.	166.84	W.	147.91
E.	1.47	K.	57.88	R.	53.08	Y.	3.68
F.	170.26	L.	21.9	S.	125.02		

13-9-5   3-20-4-8-13   17-19-20-14   18-19-8   19-11   12-14-7   8-5-19

15-9-5-8-13   10-5-11-13-20-14-19-13-5-7   12-11-14-16   2-16   23-20-6-14-5-13

9-12-14-5-8.   13-9-5   3-20-4-8-13   17-19-20-14   5-8-22-5-15-20-19-14-14-16

2-21-20-14-13   3-12-4   13-9-19-13   22-21-4-22-12-8-5,   18-19-8   12-22-5-11-5-7

20-11   5-20-23-9-13-5-5-11   3-12-4-13-16   13-9-4-5-5   20-11   2-21-15-1-14-5

8-13-4-5-5-13   18-5-14-14-20-11-23-13-13-12-11.

Strange Export

Planners once seriously considered exporting a rather strange product from the Chatam Islands to the mainland of New Zealand. To find out what the strange item was and a why the planners were considering it;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**

1. $\dfrac{1}{2} + \dfrac{1}{3}$

2. $\dfrac{2}{5} + \dfrac{1}{4}$

3. $\dfrac{3}{4} + \dfrac{1}{7}$

4. $\dfrac{2}{5} + \dfrac{1}{8}$

5. $\dfrac{3}{5} + \dfrac{1}{4}$

6. $\dfrac{1}{7} + \dfrac{3}{8}$

7. $\dfrac{3}{4} - \dfrac{1}{5}$

8. $\dfrac{2}{3} - \dfrac{3}{5}$

9. $\dfrac{3}{8} - \dfrac{1}{3}$

10. $\dfrac{6}{7} - \dfrac{1}{8}$

11. $\dfrac{2}{3} - \dfrac{3}{8}$

12. $\dfrac{7}{12} - \dfrac{2}{5}$

13. $\dfrac{1}{2} \times \dfrac{3}{4}$

14. $\dfrac{2}{3} \times \dfrac{3}{5}$

15. $\dfrac{4}{9} \times \dfrac{3}{8}$

16. $\dfrac{3}{7} \times \dfrac{4}{5}$

17. $\dfrac{6}{7} \times \dfrac{1}{3}$

18. $\dfrac{3}{4} \times \dfrac{2}{3}$

19. $\dfrac{8}{11} \div \dfrac{4}{5}$

20. $\dfrac{2}{7} \div \dfrac{4}{5}$

21. $\dfrac{7}{12} \div \dfrac{3}{4}$

22. $\dfrac{2}{5} \div \dfrac{1}{2}$

23. $\dfrac{3}{4} \div \dfrac{7}{8}$

Answer section.

A. $\dfrac{29}{56}$ E. $\dfrac{11}{60}$ I. $\dfrac{1}{6}$ N. $\dfrac{1}{15}$ S. $\dfrac{17}{20}$ W. $\dfrac{25}{28}$

B. $\dfrac{7}{24}$ F. $\dfrac{11}{20}$ K. $\dfrac{12}{35}$ O. $\dfrac{10}{11}$ T. $\dfrac{21}{40}$ Y. $\dfrac{6}{7}$

C. $\dfrac{5}{6}$ G. $\dfrac{1}{2}$ L. $\dfrac{7}{9}$ P. $\dfrac{2}{7}$ U. $\dfrac{3}{8}$ Z. $\dfrac{1}{24}$

D. $\dfrac{13}{20}$ H. $\dfrac{4}{5}$ M. $\dfrac{41}{56}$ R. $\dfrac{5}{14}$ V. $\dfrac{2}{5}$

11-12-21-15-12-14-12   15-4   19-20   8-19-4   15-4   3-6-5   7-20-19-9-12-8

3-12-16-6   10-12-6-4.   4-22-12   1-22-6-4-6-10-5   6-20-12   4-22-12   19-8-21-23

20-12-18-15-19-8   15-8   8-12-3   9-12-6-21-6-8-2   3-22-12-20-12   15-4   15-5

17-12-20-10-15-4-4-12-2   4-19   22-13-8-4   4-22-12-10.

The Breathing Lake.

Lake Wakatipu in the South Island is New Zealand's longest lake. It stretches over 77 kms. It is also one of the deepest. Its surface is 310 metres above sea level, while its deepest part is 71 metres below sea level. It is also known as "The Breathing Lake" because its water level rises and falls 7 cms every 15 minutes. To find one explanation for this phenomena;

- Work out the answer to each problem below.
- Locate the answer in the Answer section
- Transfer the appropriate letter to the code at the bottom of the page.

1.	Find 25% of 36.4	11.	Increase 72 by 5%
2.	Increase 45 by 20%	12.	Increase 96 by 18%
3.	What percentage is 2.4 of 3.6?	13.	What percentage is 36 of 142?
4.	Decrease 72.4 by 15%	14.	What percentage is 24 of 30?
5.	What is 30% of 78?	15.	What percentage is 48 of 70?
6.	What is 15% of 125?	16.	What percentage is 6.2 of 8.6?
7.	What is 28% of 42?	17.	Decrease 48 by 12%
8.	What is 145% of 16.2?	18.	Decrease 96 by 24%
9.	Increase 38 by 15%	19.	Decrease 112 by 72%
10.	Increase 42 by 28%	20.	Decrease 54 by 35%

Answer section (Some answers have been rounded to 1 dp)

A.	113.3	G.	68.6	M.	23.4	S.	31.4
B.	43.7	H.	53.8	N.	11.8	T.	72.1
D.	35.1	I.	25.4	O.	80	U.	73.0
E.	66.7	K.	9.1	P.	75.6	V.	54
F.	23.5	L.	42.2	R.	61.5	W.	18.8

5-12-14-4-13   17-3-15-3-7-20   12-16-16-4-13-9-18-16-3-19   16-10-13-19

4-13-19-3   12-7-20   8-12-17-17   14-8   16-10-3   6-12-16-3-4   17-3-2-3-17
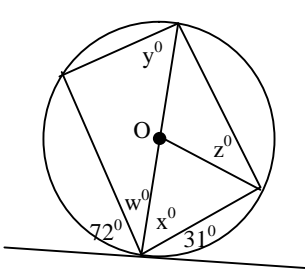
16-14   16-10-3   9-4-3-12-16-10-13-7-15   14-8   12   16-12-7-13-6-10-12

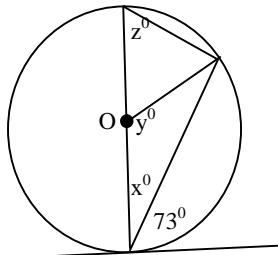17-13-2-13-7-15   13-7   16-10-3   20-3-11-16-10-19   14-8   16-10-3   17-12-1-3.

The Oldest European Artefacts.

The oldest known European artefacts in New Zealand are two anchors left by the *St Jean Babtiste* which visited New Zealand in December 1769, under the command of the French explorer, Jean de Surville. To find out a bit more of the history of the anchors and their present whereabouts;
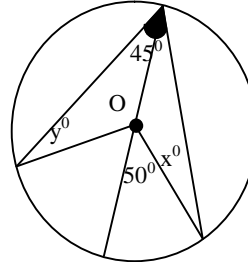
- **Find the value of the unknown marked angles in the examples below.**
- **Locate the answer in the Answer section**
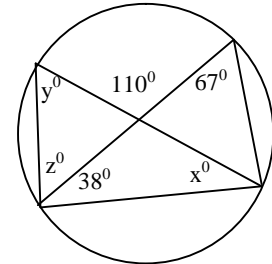- **Transfer the appropriate letter to the code at the bottom of the page.**

1. $w =$	5. $x =$	8. $x =$	10. $x =$
2. $x =$	6. $y =$	9. $y =$	11. $y =$
3. $y =$	7. $z =$		12. $z =$
4. $z =$			

13. $x =$	16. $x =$	18. $x =$	20. $x =$
14. $y =$	17. $y =$	19. $y =$	21. $y =$
15. $z =$			22. $z =$

Answer section.

A. 41^0	F. 115^0	M. 52^0	R. 43^0	V. 51^0
B. 38^0	H. 25^0	N. 60^0	S. 32^0	W. 18^0
C. 20^0	I. 31^0	O. 146^0	T. 73^0	X. 87^0
D. 72^0	K. 59^0	P. 50^0	U. 17^0	Y. 67^0
E. 102^0	L. 78^0			

7-8-14   21-19-9-8-6-12-10   15-21-11   21-7   7-8-14   18-6-7-7-6-22   6-16

3-6-5-18-7-15-14-10-10   18-21-11   4-19   19-6-12-7-8-15-21-19-3   16-6-12

7-1-6   8-5-19-3-12-14-3   21-19-3   10-4-20   11-14-21-12-10   18-14-16-6-12-14

7-8-14-11   1-14-12-14   12-14-7-12-4-14-13-14-3   18-11   3-4-13-14-12-10   4-19

19-4-19-14-7-14-14-19   10-14-13-14-19-7-11   16-4-13-14.   7-8-14-11   21-12-14

17-12-14-10-14-19-7-15-11   8-6-5-10-14-3   4-19   7-8-14   2-21-4-7-21-4-21

16-21-12   19-6-12-7-8   22-5-10-14-5-22.

© *B*² Resources

Tragic Belief

It was originally thought that there was no "fire-damp" in New Zealand coal mines and thus no risk of explosion. To find out how this was tragically disproved;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**

All of the questions below refer to these three groups of numbers.
Group A: 3,1,6,2,5,1   Group B: 7,5,3,1,9,7,9,9   Group C: 6,6,9,4,4,5,4,3,6,6

1.	**Find the mean of Group A.**	**Find the probability of each of the**
2.	**Find the median of Group A**	**following events.**
3.	**Find the mode of Group A.**	12. **Drawing a 1 from Group A.**
4.	**Find the range of Group A.**	13. **Drawing a 3 from Group A.**
5.	**Find the mean of Group B.**	14. **Drawing a 7 from Group B.**
6.	**Find the median of Group B.**	15. **Drawing a 9 from Group B.**
7.	**Find the mode of Group B.**	16. **Drawing a 3 from Group B.**
8.	**Find the range of Group B.**	17. **Drawing a 6 from Group C.**
9.	**Find the mean of Group C.**	18. **Drawing a 5 from Group C.**
10.	**Find the median of group C.**	
11.	**Find the mode of group C.**	

Find the probabilities of these composite events.
19. **Drawing a 1 from Group A and then a 7 from group B.**
20. **Drawing a 1 from Group A and then a 3 from Group C.**
21. **Drawing a 1 or a 2 from Group A.**
22. **Drawing a 7 or a 9 from Group B.**
23. **Drawing a 4 or a 6 from Group C.**
24. **Drawing a 1 and then a 2 from Group A without replacing the first draw.**

Answer section

A.	6	G.	1/6	N.	7/10	U.	1/30
B.	3	H.	7	O.	6.25	V.	1/15
C.	3/8	I.	1/3	P.	2.5	W.	8
D.	9	K.	1/8	R.	1	X.	1/2
E.	1/10	L.	5/8	S.	2/5	Y.	1/12
F.	5.3	M.	5	T.	1/4	Z.	5.5

14-5   2-3-5-24-18   11   2-5-12-23-14,   14-6-18   7-18-2-20-14-19   4-11-23-11-13-18-3

5-9   14-6-18   16-11-12-14-11-23-13-11-14-11   4-12-23-18-17   20-17-18-7   14-5

8-11-22-16   14-6-3-5-20-13-6   14-6-18   4-12-23-18-17   8-12-14-6   11

23-11-16-18-7   22-12-13-6-14.   8-6-18-23   14-6-18   18-21-2-22-5-17-12-5-23

9-12-23-11-22-22-19   15-11-4-18   12-14   16-12-22-22-18-7   14-6-12-3-14-19

9-12-24-18   4-18-23.   14-6-18   1-18-22-12-18-9   14-6-11-14   23-18-8

10-18-11-22-11-23-7   4-12-23-18-17   8-18-3-18   9-3-18-18   9-3-5-4

9-12-3-18   7-11-4-2   7-12-18-7   8-12-14-6   14-6-18-4.

© B^2 Resources

Worser Bay

Wellington's Worser Bay is so named because of the pilot James Hebberley who lived in the pilot house there in the 1840s. To find out how it got this strange name;

- **Work out the answer to each problem below.**
- **Locate the answer in the Answer section**
- **Transfer the appropriate letter to the code at the bottom of the page.**
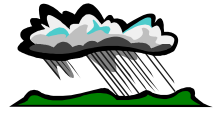
1.	$2x + 3 = 15$	**13.**	$3(x - 5) + 2 = x + 7$
2.	$3x - 15 = x + 3$	**14.**	$2x - 5 = 3(x - 4) - 1$
3.	$2x - 10 = x + 7$	**15.**	$3x + 1 = 2(x + 8) - 8$
4.	$2(x - 3) + 2 = 3(x - 2) - 9$	**16.**	$3(x - 12) + 2 = x + 6$
5.	$5x + 2(x + 1) = 3x + 10$	**17.**	$2(x - 7) + 6 = 3x - 27$
6.	$5(x + 1) = x + 3(x + 1) + 7$	**18.**	$2(2x - 19) = 2x + 6$
7.	$2x - 1 = 4(x -3) + 5$	**19.**	$3(x + 2) = 2x + 6$
8.	$2(x - 8) + 1 = x$	**20.**	$x - 9 = 2(x - 5) - 15$
9.	$3(x - 10) - 8 = x + 4$	**21.**	$3(x + 1) + 1 = 4x - 8$
10.	$3(x - 9) - 5 = x + 4$	**22.**	$2x - 6 = x + 7$
11.	$5(2x + 1) = 6(x + 2) - 3$	**23.**	$3(8 - x) + 5 = 4x + 1$
12.	$x - 9 = 2(x - 10) - 3$		

Answer section.

A.	7	**H.**	4	**N.**	2	**T.**	9
B.	1	**I.**	11	**O.**	15	**U.**	20
C.	16	**J.**	0	**P.**	17	**V.**	8
D.	12	**K.**	14	**Q.**	6	**W.**	19
E.	3	**L.**	21	**R.**	18	**Y.**	22
G.	13	**M.**	5	**S.**	10		

19-15-6-7-13   23-7-11-11-7-10-9-7-18-13   5-4-20-12-5-15-6-7   17-15-13

"17-8-10-13-7-10".   23-7   15-20-1-16-4-10-7-21   4-2   11-7-20-15-16-13-7

17-23-7-5-7-14-7-10   23-7   17-15-13   15-13-12-7-21   17-23-15-2   2-23-7

17-7-15-2-23-7-10   17-15-13   9-4-12-7,   23-7   17-8-16-9-21   10-7-3-9-18;

" 11-15-21   15-5-21   22-7-2-2-4-5-22   17-8-10-13-7-10 ! "

© B^2 Resources

Answers

A Backward Truckie:

He had to deliver a load of girders which were too long for one truck, so two trucks were positioned back to back, the girders were loaded and while a friend drove forwards Rae reversed the whole way.

A Non-swimmers Paradise:

At its deepest point, Lake Ellesmere is only just over two metres deep.

Airmail:

Trained pigeons flew the onr hundred kilometres with messages tied to their legs. A year later this pigeongram was issued with its own stamps.

As is - Where is

Unfortunately the Ruptured Duck sank off Banks Peninsula that year and the catch was that nobody knew exactly where the boat was.

Deer Capture:

On this day, in the Lindis Pass area, a deer jumped onto the skids of a helicopter and kicked it causing it to flip over. The forty thousand dollar machine was a write off. The deer escaped.

Downhill Birds:

Both the endangered kakapo and the kokako climb or hop up trees in order to glide on their inefficient wings.

Earthquake:

The biggest New Zealand earthquake in historical times was the Wellington earthquake in January eighteen fifty five with a magnitude of about eight on the Richter scale.

Famous First:

In eighteen forty five he was responsible for the earliest recorded forgery of a New Zealand note, (five pounds). He was subsequently sentenced to ten years in prison.

Garston:

No part of New Zealand is more than one hundred and twenty eight kms from the sea. Garston has the distinction of being the furthest settlement from salt water in the country.

Hairy Sheep:

It is believed that he intended to breed it out. Instead he developed a new breed which became valuable for carpet wool.

Kaiwhare:

Fishermen would not dare embark on an expedition without sending an offering to Kaiwhare. This offering consisted of food which was placed in a miniature house built on a small raft and set adrift on the ebb tide. It was a good omen and fish would be plentiful if there was no sign of the raft next morning, for it showed that Kaiwhare was satisfied with the offering. From this ceremony Kaiwhare, the house eater, received his name.

Long-winded:

"After these few preliminary remarks I will now proceed to speak on the subject under discussion." But his voice failed him and he collapsed after nearly eleven hours.

Mosses:

The smallest moss is Phascum Apiculatum which when fully grown is smaller than a grain of mustard seed.

Mount Cook:

Not only is it the highest but it is also the most dangerous. Over one hundred and sixty people have lost their lives in the Mt Cook region since the turn of last century.

New Zealand's First Jail:

The first jail was an old sea chest ventilated only by gimlet holes. The first jail especially built for that purpose, was opened in eighteen forty three in Buckle Street Wellington.

Strange Export:

Believe it or not it was frozen Weka. The Chatams are the only region in New Zealand where it is permitted to hunt them.

The Breathing Lake:

Maori legend attributes this rise and fall of the water level to the breathing of a taniwha living in the depths of the lake.

The Oldest European Artefacts:

The anchors lay at the bottom of Doubtless Bay in Northland for two hundred and six years before they were retrieved by divers in nineteen seventy five. They are presently housed in the Kaitaia Far North Museum.

Tragic Belief:

To prove a point, the Deputy Manager of the Kaitangata mines used to walkthrough the mines with a naked light. When the explosion finally came it killed thirty five men. The belief that New Zealand mines were free from fire damp died with them.

Worser Bay:

James Hebberley's nickname was "Worser". He acquired it because whenever he was asked what the weather was like, He would reply; "Bad and getting worser!"