



# Year 6 End-of-year Test

## Number and Algebra

### Working

1 Circle the **five** square numbers.      21      9      48      36      25  
    100      80      81      6      32

2 Arrange **10** dots to show why 10 is a triangular number.



3 Find the prime number. Colour one bubble.

35      36      37  
           

4 Which pair of temperatures show the highest and lowest temperatures in the table?

Africa	Ifrane, Morocco	-23.9
Antarctica	Vostok	-89.2
Asia	Oymyakon, Russia	-71.2
Australia	Charlotte Pass	-23.0
Europe	Ust-Schugor, Russia	-58.1
North America	Northice, Greenland	-66.0
South America	Sarmiento, Argentina	-33.0

- 23.9, -89.2  
 -23.0, -89.2  
 -23.0, -23.9

5 Show how the distributive rule can be used to split and multiply this calculation.

$$999 \times 5$$

$$(\quad - \quad) \times 5$$

$$\quad - \quad$$

$$\quad$$

Use these facts to help you solve the operations below.

China's population in 2010: 1 348 000 000

USA's population in 2010: 309 000 000

USA's population in 2050: 420 000 000

Tasmania's area: 68 400 km<sup>2</sup>

Australia's area: 7 692 000 km<sup>2</sup>

6 China's population in 2050 is predicted to be 76 000 000 more than its population in 2010. What is China's predicted 2050 population?

7 How many more people are predicted to be living in the USA in 2050 compared to 2010?

8 In 2010, one fifth of the world's people lived in one country, China. Calculate the approximate population of the world at that time.

9 Australia's largest state, Western Australia, is about 37 times the area of Tasmania. Calculate the approximate area of Western Australia.

10 The area of Australia is about 4 times the size of Mexico. What is the approximate area of Mexico?



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11  $95 \div 4$  (with remainder to hundredths)

12  $346 \div 8$  (with remainder to hundredths)

Use backtracking to rewrite these equations, then work out the unknown

13  $(\square \times 5) - 3 = 37$

14  $(\square \times 9) - 6 + 100 = 121$

15  $\frac{2}{5} = \frac{\square}{15}$

16 Paul's pizza is cut into eighths. He eats four pieces.  
What fraction of the pizza is left?

$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{5}{8}$
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17 Which fraction is more than half?

$\frac{1}{7}$	$\frac{3}{7}$	$\frac{7}{14}$	$\frac{7}{10}$
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Add or subtract these fractions by first converting them into equivalent fractions with the same denominator.

18  $\frac{3}{4} + \frac{1}{8} =$

19  $\frac{2}{3} - \frac{4}{9} =$

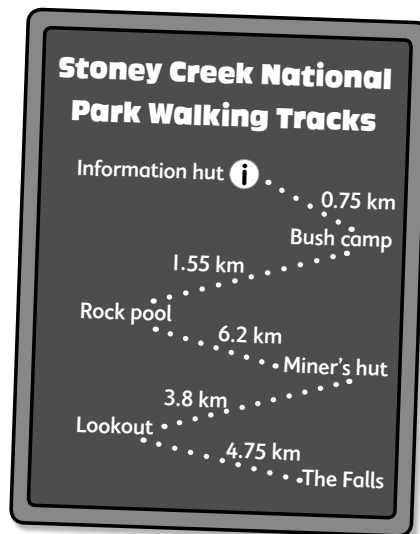
20 Use the Stoney Creek National Park sign to work out the distance from the Rock pool to The Falls.

21  $1 - 0.75$

22  $0.5 \times 0.5$

23  $0.3 \times 7$

24  $0.09 \times 0.2$



## Working



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## Number and Algebra

### Take away menu



Hamburger  
\$5.65



Hot dog  
\$4.20



Salad wrap  
\$5.95



Hot chips  
\$2.50

### Working

Use the Take away menu to calculate the cost of these orders.

25 A hot dog, a salad wrap and hot chips

26 What is the change from \$20.00 for one hamburger?

27 How much for four hamburgers?

28 Share a \$16.80 lunch bill equally among four people.

29 770 is equal to:

7.7 x 10

7.7 x 100

7.7 x 1000

30 Which number is largest?  
Colour one bubble.

$\frac{7}{10}$

0.75

7%

31 How much for \$80 shoes after a discount of 20%?

32 Calculate the operations in the correct order.

$0.4 + 0.6 \div 2$



33  $1500 \text{ m} = \square \text{ km}$

- 150     15     1.5

34  $3 \text{ kg} = \square \text{ g}$

- 3000     130     0.3

35  $0.6 \text{ L} = \square \text{ mL}$

- 6     600     6000

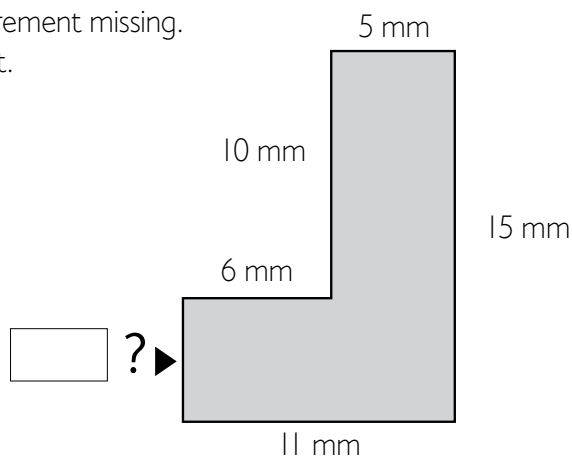


## Working

36 How many **250 mL** cups can be poured from a **2 L** bottle of soft drink?

37 Leroy set a new school long jump record of **5.3 m**.  
The old record was **4.98 m**.  
How many centimetres did Leroy add to the record?

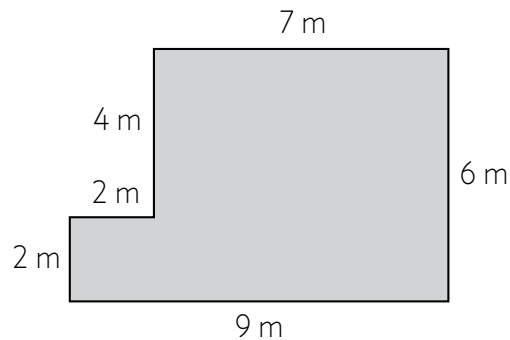
38 This shape seems to have a measurement missing.  
Work out the missing measurement.



39 Calculate the **perimeter** of the shape above.



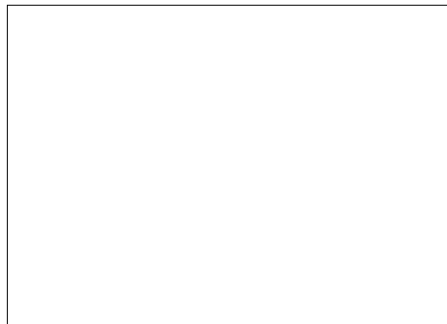
40 Use your preferred strategy to calculate the **area** of this shape.



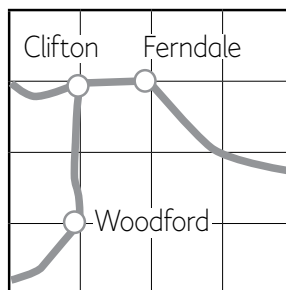
41 How many minutes shorter is Skaredy Katz than Kid President?

Movie Guide				
Movie	Session times			Length
The Fairy Brats	9:20	11:30	1:30	1 h 48 min
Kid President	9:00	11:20		2 h 10 min
Skaredy Katz	2:30	4:00	5:30	1 h 26 min
Harry Potty	1:30	4:20	7:10	2 h 40 min

42 Sketch a net for this 3D object.



43 The distance from Clifton to Woodford is **6 km**. How far is Ferndale from Clifton?



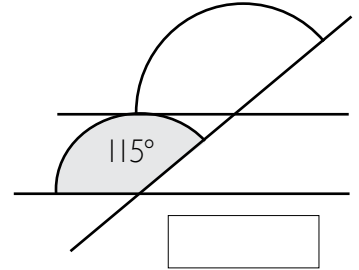
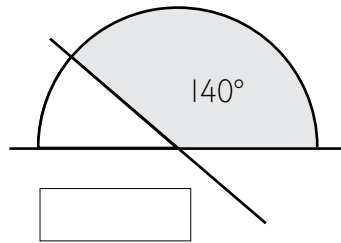
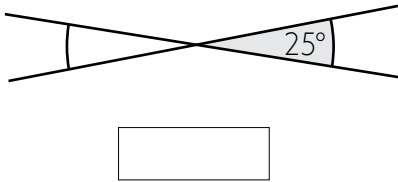
## Working



# Year 6 End-of-year Test

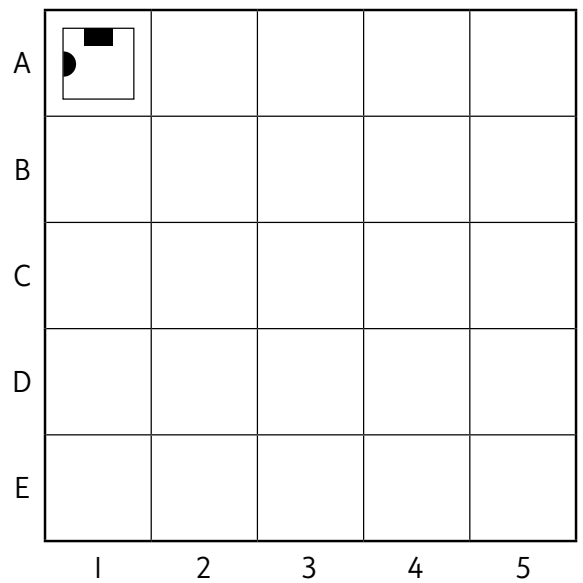
## Measurement and Geometry

44 Use your knowledge of the properties of angles to work out the missing angles.



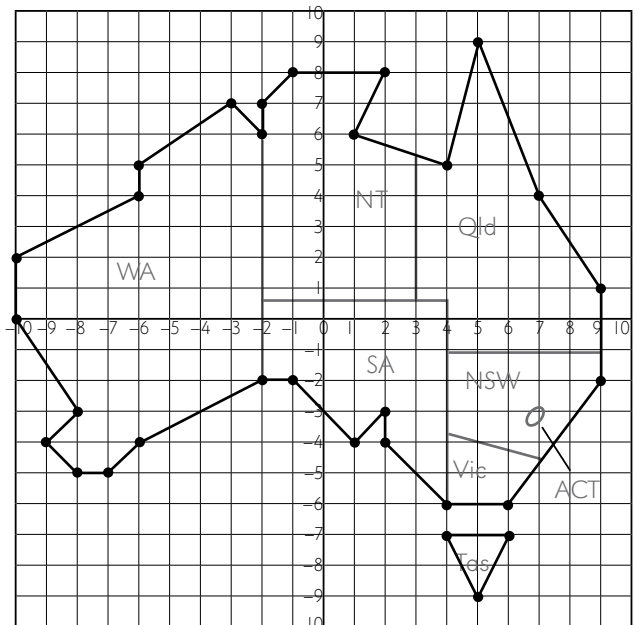
45 Draw the shape from **A1** in its final location.

- Flip to the right 1 square
- Slide down 4 squares
- Slide right 1 square and rotate 180°.



46 In which Australian state or territory are these coordinates located?

- (-8, -3)
- ( 5, -6)
- ( 7, 4)
- ( 5, -8)
- (-1, 8)





# Year 6 End-of-year Test

## Statistics and Probability

What is the probability of these events?

47 Spinning a 7 on the wheel.

$\frac{1}{7}$

$\frac{7}{12}$

$\frac{1}{12}$

48 Spinning an even number on the wheel.

one out of two

one out of twelve

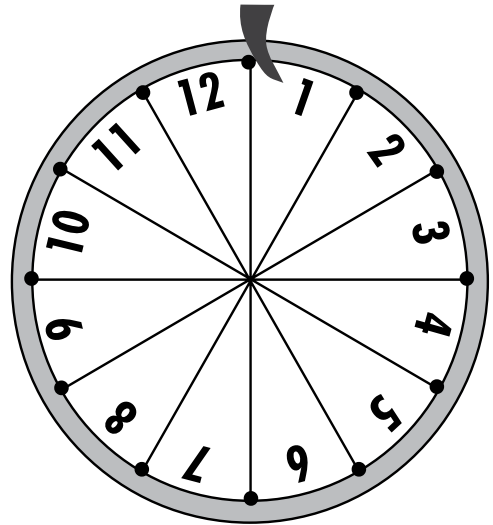
six out of ten

49 Spinning a number less than 13.

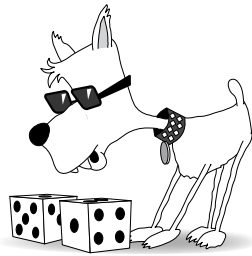
unlikely

likely

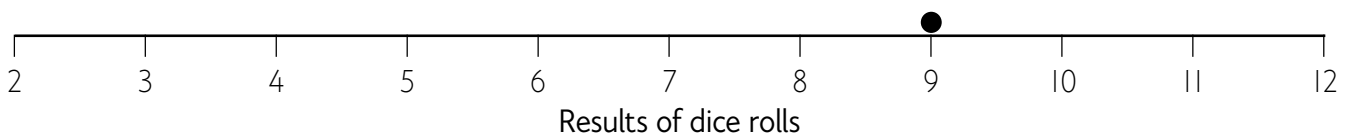
certain



50 Two dice were rolled and the results recorded. Present the two-dice totals as a dot plot.



4 5 = 9	2 5	5 6	4 2
2 2	2 3	2 2	5 2
3 4	1 2	6 4	1 5
4 1	4 4	1 4	1 1
5 3	6 6	6 1	3 3
4 3	3 1	5 4	5 1
2 1	6 3	3 2	2 4
3 5	6 5	1 6	2 6
6 2	5 5	4 6	3 6





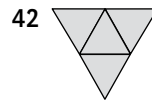
# Year 6 End-of-year Test Answers

## Number and Algebra

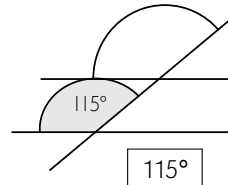
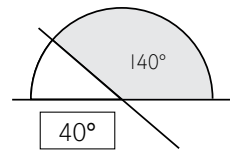
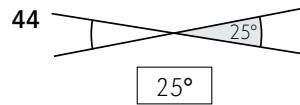
- 1  $\frac{21}{100}$   $\frac{9}{80}$   $\frac{48}{81}$   $\frac{36}{6}$   $\frac{25}{32}$
- 2
- 3 37
- 4 -23.0 -89.2
- 5  $(1000 - 1) \times 5 = 5000 - 5 = 4995$
- 6 1 424 000 000
- 7 111 000 000
- 8 6 740 000 000
- 9 2 530 800 km<sup>2</sup>
- 10 1 923 000 km<sup>2</sup>
- 11 23.75
- 12 43.25
- 13  $\boxed{8}(37 + 3) \div 5 = 8$
- 14  $\boxed{3}(121 - 100 + 6) \div 9 = 3$
- 15  $\frac{6}{15}$
- 16  $\frac{1}{2}$
- 17  $\frac{7}{10}$
- 18  $\frac{7}{8}$
- 19  $\frac{2}{9}$
- 20 14.75 km
- 21 0.25
- 22 0.25
- 23 2.1
- 24 0.018
- 25 \$12.65
- 26 \$14.35
- 27 \$22.60
- 28 \$4.20
- 29  $7.7 \times 100$
- 30 0.75
- 31 \$64
- 32 0.7

## Measurement and Geometry

- 33 1.5    34 3000    35 600
- 36 8    37 32 cm    38 5 mm
- 39 52 mm    40 46 m<sup>2</sup>    41 44 min



43 3 km



45

A					
B					
C					
D					
E					
	1	2	3	4	5

- 46 (-8, -3) WA  
 ( 5, -6) Vic  
 ( 7, 4) Qld  
 ( 5, -8) Tas  
 (-1, 8) NT

## Statistics and Probability

47  $\frac{1}{12}$

48 one out of two

49 certain

