

# NUMERACY NON-CALCULATOR



YEAR

**7**

Example test

SESSION 2

**0:40**

Time available for students to  
complete test: 40 minutes

Use 2B or HB  
pencil only



# YEAR 7 NUMERACY (NON-CALCULATOR)



1

Which one of these has the same value as  $12 \times 3$  ?

$10 + 3 + 2$

$10 \times 3 + 2$

$10 \times 3 + 3$

$10 \times 3 + 6$

2

Nick multiplied 38 by 76 on his calculator.

The answer shown was 2888.

Nick then pressed four more buttons.

The answer shown was now 38.

Which four buttons could Nick have pressed to get 38?

$+ 7 6 =$

$- 7 6 =$

$\times 7 6 =$

$\div 7 6 =$



3

The table shows the times of 3 of the first 4 swimmers in a race.

1st place	25.38 seconds
2nd place	25.83 seconds
3rd place	?
4th place	26.29 seconds

The time of the swimmer in 3rd place could be

25.78 seconds.

25.91 seconds.

26.31 seconds.

26.92 seconds.

4

Another way of writing  $6^2$  is

$6 \times 2$

$6 \times 6$

$6 + 6$

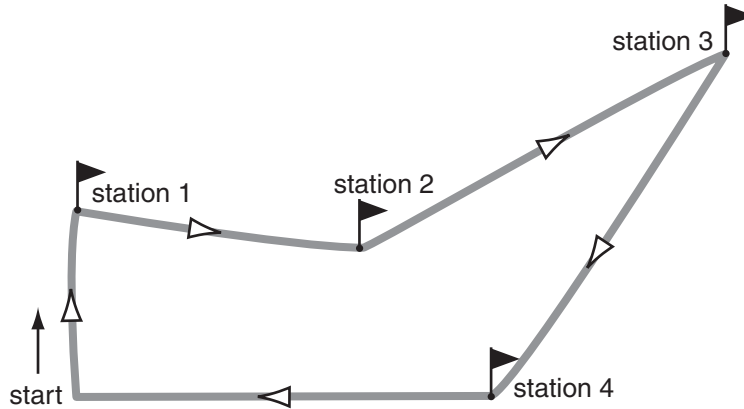
$2 \times 2 \times 2 \times 2 \times 2 \times 2$



5

This is a map of a running course.

There are 4 drink stations. ↓



At which drink station do the runners make the greatest change of direction?

station 1

station 2

station 3

station 4

6

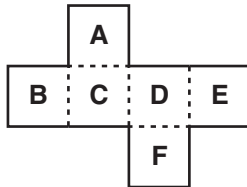
3.25, 3.0, 2.75, 2.5, 2.25, ...

What is the rule to continue this decimal number pattern?

- increase by 0.5
- increase by 0.25
- decrease by 0.5
- decrease by 0.25

7

Hannah folds this net to make a cube.



Which face is opposite face C?



8

A rectangular paddock has a perimeter of 50 metres.  
Each long side has a length of 15 metres.

What is the length of each short side?

metres

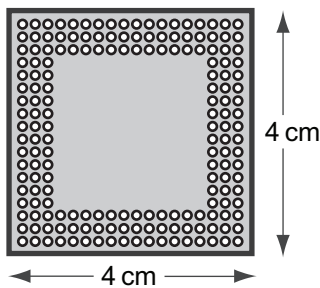
9

A number is multiplied by itself and then 9 is added.  
The answer is 13.

What is the number?

10

A computer chip has dimensions 8 mm × 8 mm.  
A scale drawing is shown below.



What scale is used in the drawing?

- 1 cm represents 5 mm
- 1 cm represents 2 mm
- 2 cm represents 1 mm
- 5 cm represents 1 mm

11

Jenny is exactly 3 years old.  
Her brother Ken is exactly 17 months old.

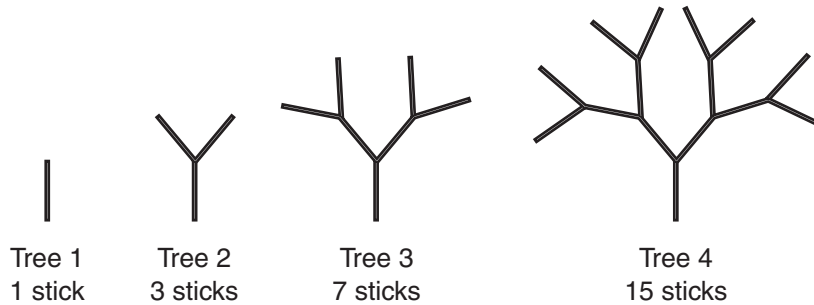
How many months older than Ken is Jenny?

- |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|
| 13                    | 14                    | 19                    | 21                    |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



12

Lucy made 4 tree designs using sticks.  
There is a pattern in the way the trees grow.



Lucy continues the pattern in the same way.

How many sticks will Tree 5 have?

23

31

35

45

13

Bruce is cooking dinner.  
The table shows the cooking times for his dinner.

	Cooking time
Chicken	1 hour 40 minutes
Potatoes	20 minutes
Peas	10 minutes

Bruce starts cooking the chicken at 5:10 pm.  
He wants everything to finish cooking at the same time.

At what time should Bruce start cooking the peas?

6:20 pm

6:30 pm

6:40 pm

6:50 pm

14

What is \$10 as a percentage of \$40?

4%

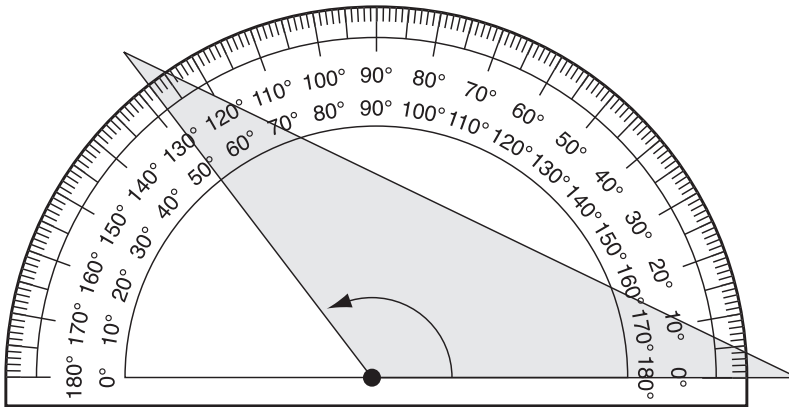
10%

25%

40%



15



What is the size of the angle in the shaded triangle marked by the arrow?

degrees

16

Helen has 24 red apples and 12 green apples.

What fraction of the apples are green?

$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{4}$

$\frac{1}{12}$

17

This table shows the results of a survey on mobile phone bills.

**Monthly bill**

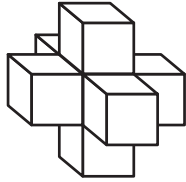
Age	\$20 or less	Greater than \$20 and less than \$30	\$30 or more
Under 20	12	28	18
20 – 40	8	14	13
Over 40	15	17	12

In total, how many people under the age of 20 had a monthly bill of **less than \$30**?



18

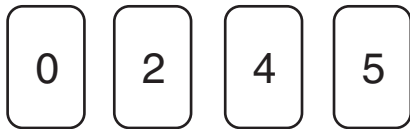
This 3D symmetrical object is made by joining cubes.  
It is then painted.



How many faces are painted?

19

These are four number cards.



Use each card once to make this number sentence true.

$$\boxed{\phantom{0}} \boxed{\phantom{0}} \boxed{\phantom{0}} \times \boxed{\phantom{0}} = 2010$$

20

$$37.9 \times 10 =$$

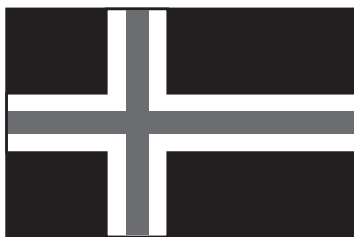
3790

3709

37.90

379

21



How many lines of symmetry does the design on this flag have?

4

3

2

1

# YEAR 7 NUMERACY (NON-CALCULATOR)



22

Jill lives in a street that runs directly north–south.  
Her house is north of the park and west of the school.



What street does Jill live in?

Adams St

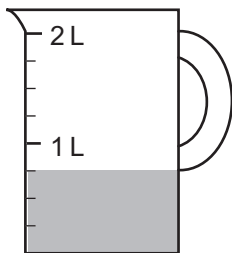
Bonnel St

Station St

Main St

23

This jug has some milk in it.



If Eve adds an extra 500 mL of milk to the jug,  
how many millilitres (mL) of milk will then be in the jug?

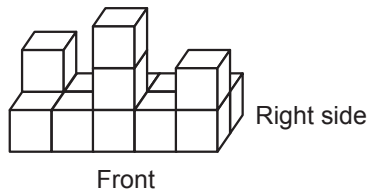
 mL



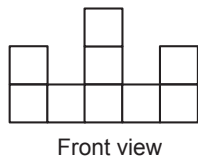


24

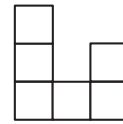
This object was made using identical cubes.



This is a drawing of the view from the front.

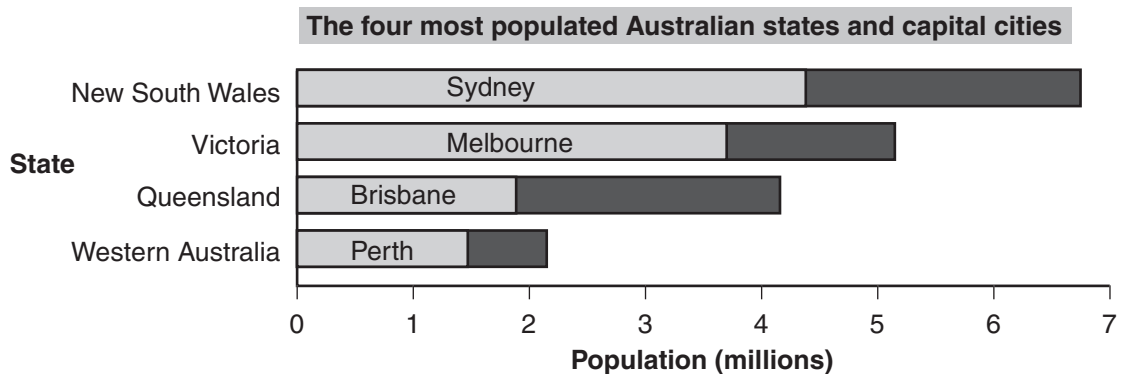


Which drawing shows the view from the right side?



25

Each bar of this graph shows the population of a state and the population of its capital city.



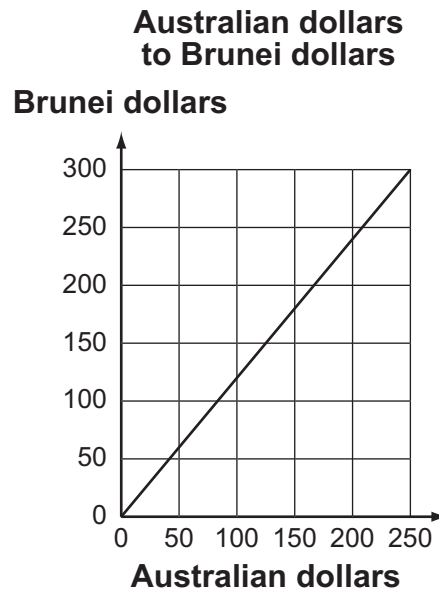
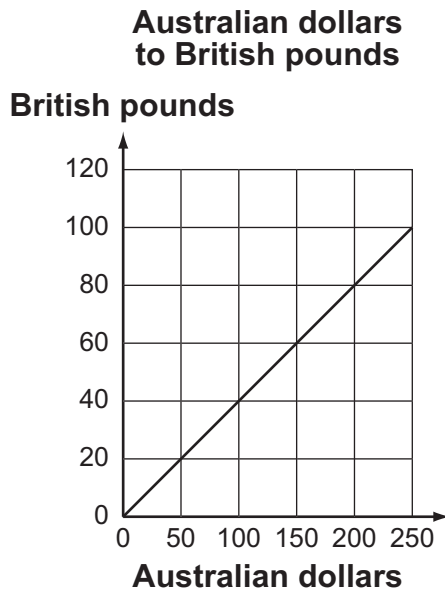
Which of these states has the lowest percentage of its population living in its capital city?

- New South Wales
- Victoria
- Queensland
- Western Australia



26

Alex uses these two conversion graphs.



How many Brunei dollars are equal in value to 50 British pounds?

Brunei dollars

27

This clock shows 5 o'clock.



What is the size of the smaller angle between the minute and hour hands?

degrees

28

What is the answer to  $6.6 \div 0.3$ ?

0.022

0.22

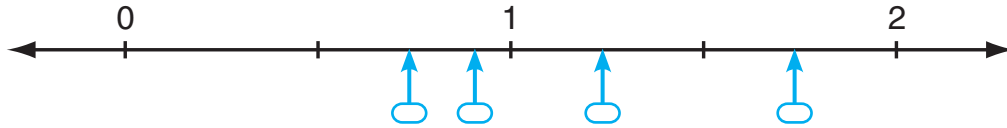
2.2

22



29

Which arrow is pointing closest to the location of  $\frac{3}{4}$  on this number line?



30

Ben has 2 identical pizzas.  
 He cuts one pizza equally into 4 large slices.  
 He then cuts the other pizza equally into 8 small slices.  
 A large slice weighs 32 grams more than a small slice.

What is the mass of one whole pizza?

grams

31

The dimensions of a large room are double the dimensions of a small room.  
 Both rooms are rectangular prisms. The volume of the small room is 10 cubic metres.


What is the volume of the large room?

- 20 cubic metres
- 40 cubic metres
- 80 cubic metres
- 160 cubic metres



32

This is the label from a can of soup.

<b>Soup Delight</b> RICH 'N' RED Tomato		
		
	Quantity	
	Per 100 g	One serve
ENERGY	150 kJ	450 kJ
PROTEIN	0.6 g	1.8 g
FAT	0.3 g	0.9 g
CARBOHYDRATE	6.9 g	20.7 g
- SUGARS	6.3 g	18.9 g
SODIUM	345 mg	1035 mg

What is the mass of one serve of this soup?  grams

**STOP – END OF TEST**