

NATIONAL ASSESSMENT PROGRAM  
LITERACY AND NUMERACY

# NUMERACY

## CALCULATOR ALLOWED



YEAR  
**7**

SAMPLES

BOOKLET 1

The following questions are examples of NAPLAN style questions. They have been sorted into the following categories:

- SPACE & GEOMETRY
- NUMBER
- ALGEBRA & PATTERNS
- MEASUREMENT
- DATA

NAME: \_\_\_\_\_

## **SPACE & GEOMETRY**

**In this topic area you should have a good understanding of the following:**

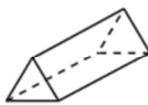
- **Prisms, Pyramids and other solids;**
- **Faces, Edges and Vertices;**
- **Views of 3D shapes from different orientations;**
- **Isometric drawings;**
- **Nets of solids;**
- **Clockwise, anti-clockwise, quarter, three-quarter;**
- **Left and right;**
- **Compass directions;**
- **Names & properties of 2D shapes;**
- **Angles;**
- **Reading a protractor;**

**SPACE & GEOMETRY**

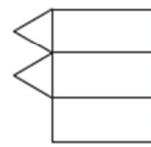
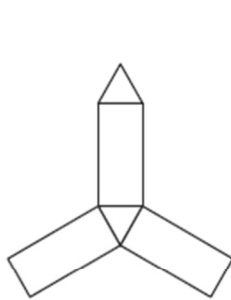
- 3** Which picture shows a card opened to about  $45^\circ$ ?



- 6** This is a triangular prism.

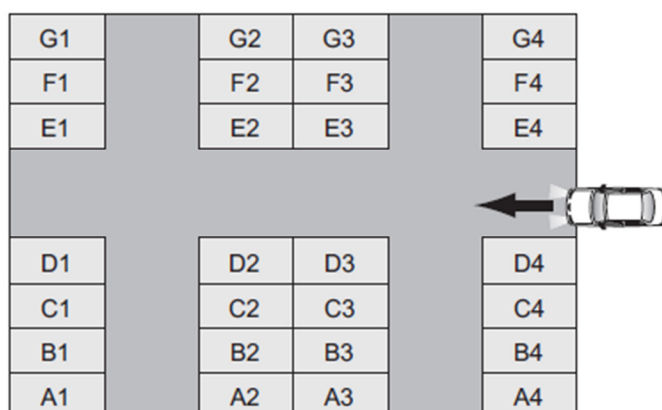


Which diagram is the net of a triangular prism?



- 7** This plan shows the parking spaces in a car park.

Shade one bubble.



Simon enters the car park at the arrow.

He takes the second turn on his left and parks in the third parking space on his right.

Which parking space is this?

A1

B1

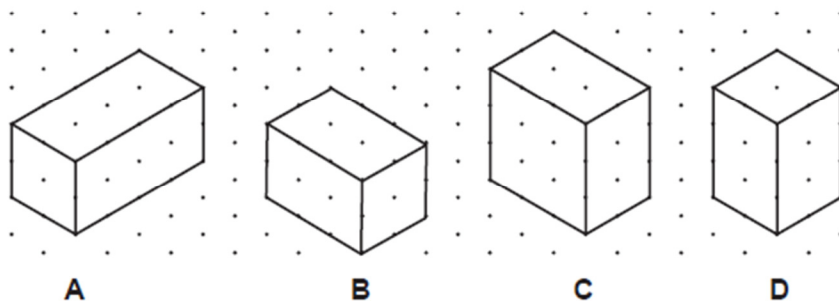
G2

B2

☐
☐
☐
☐

- 10** These isometric drawings of some rectangular prisms are labelled A, B, C and D.

Shade one bubble.



**A**

**B**

**C**

**D**

Which two drawings are of the same rectangular prism?

A and B

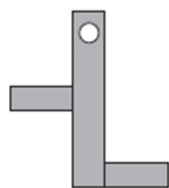
B and C

C and A

B and D

☐
☐
☐
☐

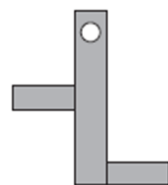
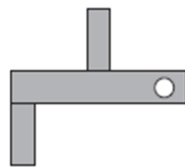
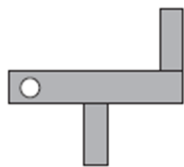
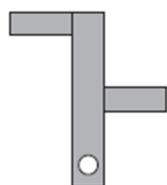
- 12** This shape turns around the white dot.



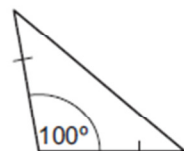
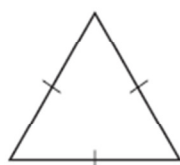
Shade one bubble.



What does it look like after a three-quarter turn clockwise?



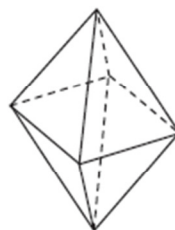
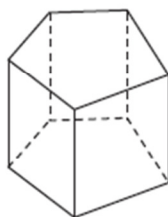
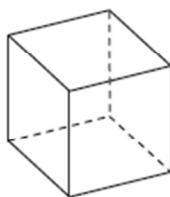
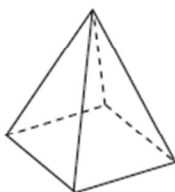
- 19** Which one of these is a right-angled isosceles triangle?



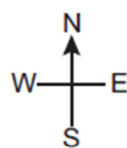
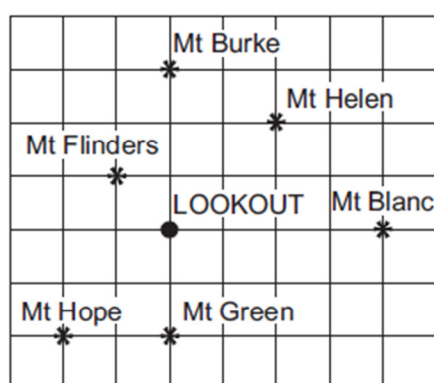
Not to scale

- 23** Which object has exactly twice as many edges as faces?

Shade one bubble.



- 25** This is a map of mountains in a national park.



KEY	
*	Mountain (Mt)
●	LOOKOUT

Anna is at the Lookout facing South. She turns  $225^\circ$  in a **clockwise** direction.

Which mountain is Anna now facing?

Mt Helen

☐

Mt Blanc

☐

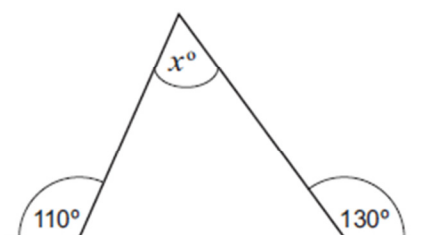
Mt Flinders

☐

Mt Hope

☐

- 26**



Not to scale

Shade one bubble.



What is the value of  $x$  in this diagram?

50

☐

55

☐

60

☐

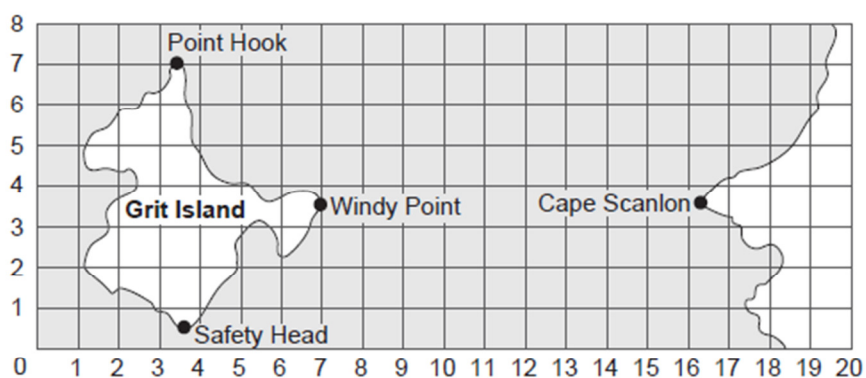
70

☐

**32**

Here is a map of Grit Island.

The shortest distance from Point Hook to Safety Head is 1300m.



The shortest distance from Windy Point to Cape Scanlon is closest to

950 m

☐

1700 m

☐

1900 m

☐

2250 m

☐

## **NUMBER**

**In this topic area you should have a good understanding of the following:**

- **Place value;**
- **Writing numbers in numerical form;**
- **The four operations and order of operations;**
- **Integers & the four operations;**
- **Percentages;**
- **Fractions & the four operations;**
- **Decimals & the four operations;**
- **Rates & Ratio;**
- **Multiples and Factors;**
- **Products of Prime Factors**



## NUMBER

- 2** Which number is **four thousand and seventy-six**?

4067

☐

4760

☐

4706

☐

4076

☐

Shade one  
bubble.



- 5** Which number is exactly halfway between  $1\frac{1}{4}$  and  $3\frac{3}{4}$  ?

 $1\frac{1}{2}$ ☐

2

☐ $2\frac{1}{2}$ ☐ $2\frac{3}{4}$ ☐

- 8** Cassie rode her bike for 30 seconds. She rode at a speed of 6 metres per second.

How far did she ride?

5 m

☐

36 m

☐

180 m

☐

300 m

☐

- 11** A car uses an average of 8 litres of fuel for every 100 km travelled.

At this rate, how many litres would the car use to travel 250 km?

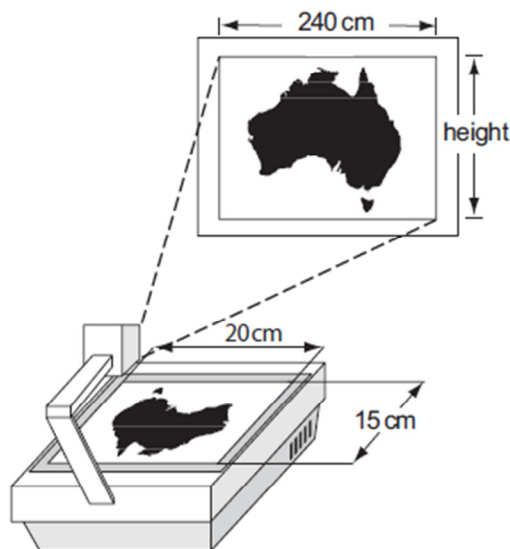
Write your answer  
in the box.



litres

- 13** A projector is used to enlarge this map on to a wall.

Shade one bubble.



What is the height of the enlarged map shown on the wall?

150 cm

180 cm

200 cm

300 cm

☐☐☐☐

- 15** A school has 150 students.

80 of the students each have a book on loan from the library.

Shade one bubble.

The fraction of students who have a book on loan from the library is closest to

one-fifteenth.

one-eighth.

one-quarter.

one-half.

☐☐☐☐

- 24** Hugo's electricity bill was \$180 last month. This month it is \$135.

What percentage decrease is this?

25%

33%

45%

55%

☐☐☐☐

- 28** There are 420 girls and boys at a concert.  
The ratio of girls to boys at the concert is 3 to 7.

How many girls are at the concert?

126

☐

140

☐

180

☐

294

☐

Shade one  
bubble.



- 29** Sally has 60 DVDs.  
This table shows the percentage of each type of DVD.

How many Comedy DVDs does Sally have?

3

☐

12

☐

15

☐

20

☐

Type of DVD	Percentage
Drama	45%
Sport	25%
Comedy	20%
Cartoons	10%

## **MEASUREMENT**

**In this topic area you should have a good understanding of the following:**

- **Comparing lengths;**
- **Converting units of measurement :**
  - **Length;**
  - **Mass;**
  - **Capacity;**
  - **Time;**
  - **Area;**
  - **Volume**
- **Estimating;**
- **Calculating areas;**
- **Applying your knowledge of measurement to word problems**

## MEASUREMENT

- 11** A car uses an average of 8 litres of fuel for every 100 km travelled.  
At this rate, how many litres would the car use to travel 250 km?

Write your answer  
in the box.


 litres

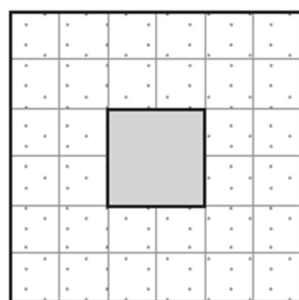
- 14** One-fifth of the length of Ruby's skipping rope is 30 cm.

Write your answer  
in the box.



How long is her rope?  cm

- 16** Here is a plan of Jim's backyard.



## KEY

- ☐ Paving  
☒ Garden

Shade one  
bubble.



The area of the square garden in the middle is  $16 \text{ m}^2$ .

What is the area of the paving in Jim's backyard?

$20 \text{ m}^2$

☐

$32 \text{ m}^2$

☐

$128 \text{ m}^2$

☐

$144 \text{ m}^2$

☐

- 17** Kim paid \$1.50 for cherries at this price.

How many grams of cherries did she buy?



0.25 g

☐

25 g

☐

150 g

☐

250 g

☐

- 18** How many hours and minutes are between 2:27 am and 2:16 pm on the same day?

- ☐ 11 hours and 11 minutes  
☐ 11 hours and 49 minutes  
☐ 12 hours and 11 minutes  
☐ 12 hours and 49 minutes

- 21** A stack of cardboard sheets is 11.4 centimetres thick.  
Each sheet of cardboard is 0.03 centimetres thick.

Write the answer  
in the box.

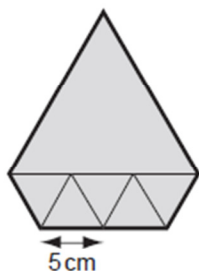


How many sheets of cardboard are in the stack?

sheets

- 22** This shape is made from five small equilateral triangles and one large equilateral triangle.

Shade one  
bubble.



Each side of all the small triangles is 5 cm long.

What is the perimeter of the shape?

15 cm

☐

45 cm

☐

50 cm

☐

85 cm

☐

- 27** Niki uses 15 litres of water every minute when she has a shower.  
She uses 100 litres of water when she has a bath.

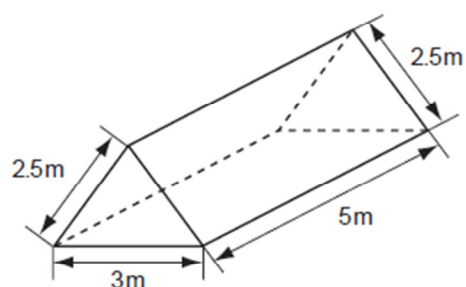
Write your answer  
in the box.



How many litres of water does she **save** by having a  $3\frac{1}{2}$  minute shower instead of a bath?

litres

- 30** This solid triangular prism needs all its faces painted.  
The area of each triangular face is  $3\text{ m}^2$ .



Not to scale

What is the **total** area to be painted?

  $\text{m}^2$ 

Write your answer  
in the box.



- 31** 1 kilometre and 40 metres is the same as

140 km

☐

1.04 km

☐

1004 m

☐

1.40 m

☐

Shade one  
bubble.



## **DATA**

**In this topic area you should have a good understanding of the following:**

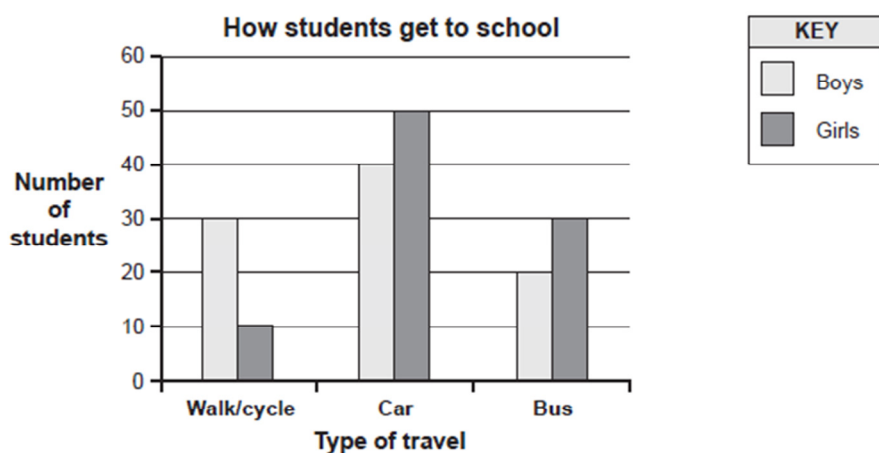
- **Reading and interpreting different types of graphs and tables:**
  - **Line graphs;**
  - **Column graphs;**
  - **Bar charts;**
  - **Sector graphs;**
- **Probability**
- **Average**



## DATA

- 1 This graph shows how students at Ascot College usually get to school.

Write your answer in the box.



Use the information in the graph to complete this table.

	Walk/cycle	Car	Bus
Boys	30		20
Girls	10	50	30

- 4 This table summarises the time Mick spent walking his dog over five days.

Shade one bubble.



TIME SPENT WALKING THE DOG	
Day	Time
Monday	45 minutes
Tuesday	50 minutes
Wednesday	1 hour
Thursday	62 minutes
Friday	43 minutes

What was the average (mean) time for these walks?

40 minutes

☐

52 minutes

☐

65 minutes

☐

260 minutes

☐

- 9** Marie spins these two arrows. She adds the numbers in the sections where the arrows stop and gets a **total** of 5.



Marie then spins the arrows again. How many different ways can she get a **total** of 8?

1

☐

2

☐

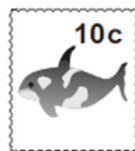
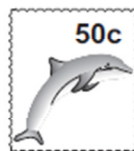
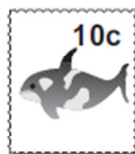
3

☐

4

☐

- 20** Miki turned these stamps over and mixed them up.



Shade one bubble.



He selects one at random.

What is the chance of Miki selecting a 5c stamp?

1 out of 4

☐

1 out of 5

☐

2 out of 5

☐

4 out of 6

☐

