

Year 7 Numeracy

Non-calculator

Full-length Test 9

Writing time: 40 minutes

Use 2B pencil only

Instructions

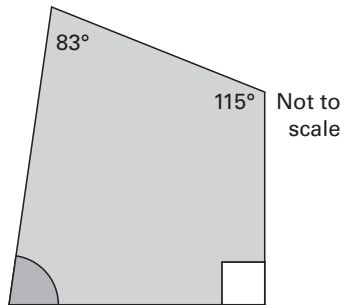
- Write your **student name** in the space provided.
- You must be silent during the test.
- If you need to speak to the teacher, raise your hand. Do not speak to other students.
- Answer all questions using a 2B pencil.
- If you wish to change your answer, erase it thoroughly and then write your new answer.
- Students are NOT permitted to bring a calculator into the test room.

Student name:

QUESTION 1



WRITE YOUR OWN ANSWER



What is the size of the angle marked in the quadrilateral?

72°

QUESTION 2

18.7 km is equal to?

SHADE ONE BOX

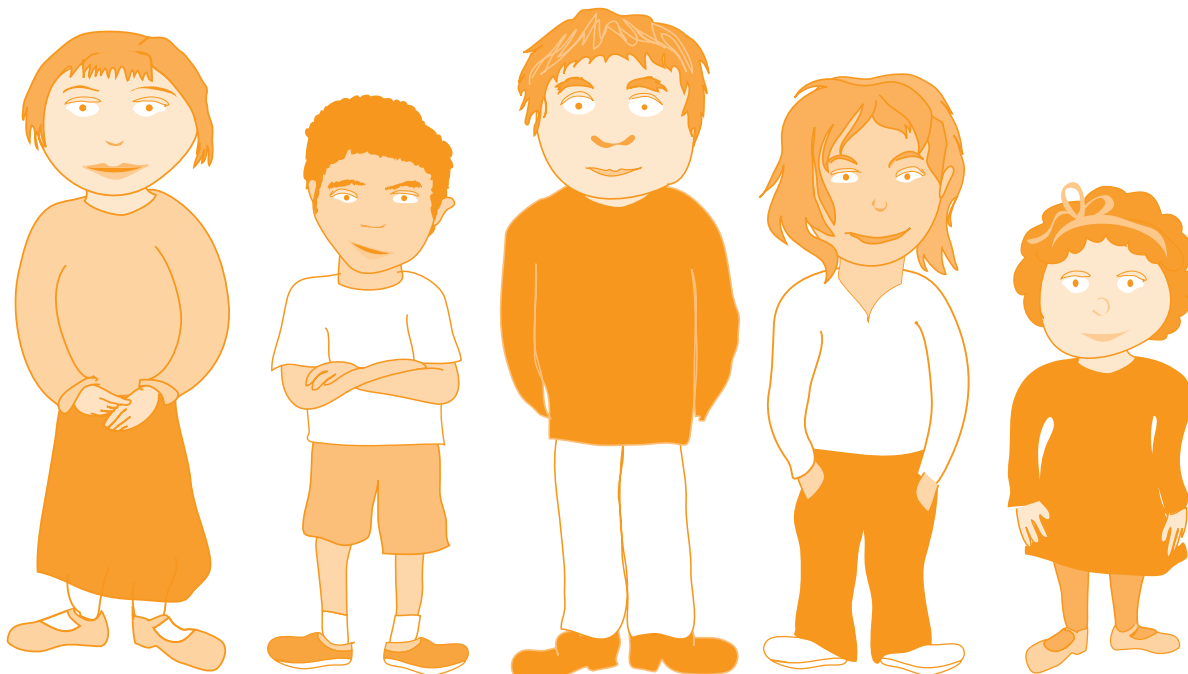


- ☐ 187 m
- ☐ 1870 m
- ☒ 18700 m
- ☐ 187000 m

QUESTION 3

The ages of five children are shown below.

SHADE ONE BOX



Ki-Min: 10

Carlos: 7

Costa: 9

Monique: 10

Sasha: 4

What is the median age of these children?

- ☐ 7
- ☐ 8
- ☒ 9
- ☐ 10

QUESTION 4

$92 \times 7 = ?$

644

**WRITE YOUR OWN ANSWER****QUESTION 5**Which mixed numeral is equivalent to $\frac{37}{8}$?

☐ $3\frac{5}{8}$

☐ $3\frac{7}{8}$

☐ $4\frac{3}{8}$

☒ $4\frac{5}{8}$

SHADE ONE BOX

QUESTION 6

$0.902 = ?$

☒ $9 \times \frac{1}{10} + 2 \times \frac{1}{1000}$

☐ $9 \times \frac{1}{10} + 2 \times \frac{1}{100}$

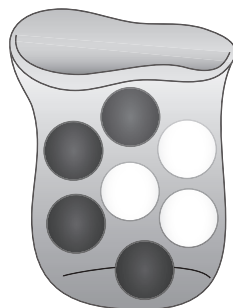
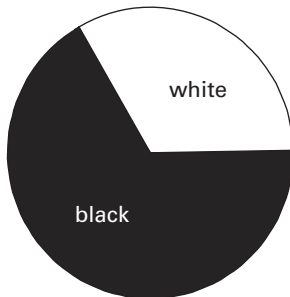
☐ $9 \times 10 + 2 \times 1000$

☐ $9 \times 1 + 2 \times 100$

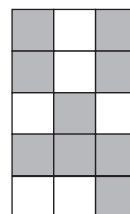
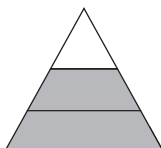
SHADE ONE BOX

QUESTION 7

Which one of these events is most likely to occur?

☒ the above spinner is spun once, landing on black☐ without looking, choosing a black ball from the bag above☐ tossing a coin and landing on heads☐ from a bag containing 3 blue, 4 green and 5 yellow marbles, choosing, without looking, a blue marble

SHADE ONE BOX

QUESTION 8Which diagram shows $\frac{2}{3}$ of its area shaded?

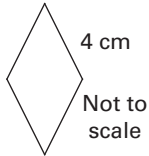
SHADE ONE BOX

QUESTION 9

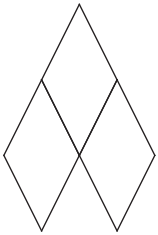
If $636 \div 4 = 159$, then $6.36 \div 0.4 = ?$

☐ 0.159☐ 1.59☒ 15.9☐ 159SHADE ONE BOX **QUESTION 10**

Stefan has some diamond shaped tiles. Each edge of a tile is 4 cm long.



He puts three tiles together to make this shape.



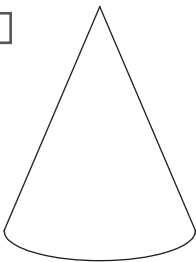
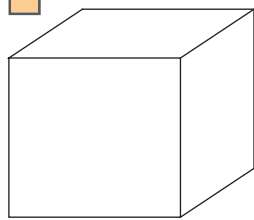
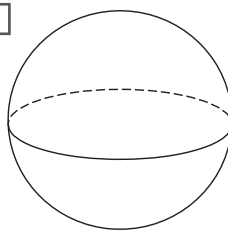
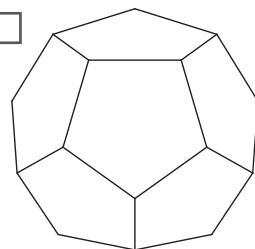
What is the perimeter of Stefan's shape?

☐ 40 cm☐ 36 cm☒ 32 cm☐ 28 cmSHADE ONE BOX **QUESTION 11**

What is \$10 as a percentage of \$50?

☐ 5%☐ 10%☒ 20%☐ 25%SHADE ONE BOX **QUESTION 12**

Which of the following solids is a prism?

☐☒☐☐**QUESTION 13**

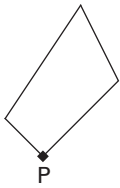
If $m = 7$, then $2 \times (m - 3) = ?$

☒ 8☐ 10☐ 11☐ 24SHADE ONE BOX 

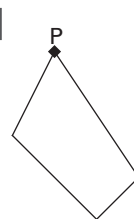
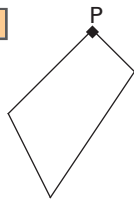
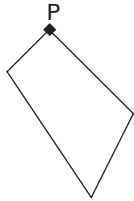
QUESTION 14

SHADE ONE BOX

The shape below is turned about point P.



What will the shape look like after a half-turn clockwise about point P?



QUESTION 15

SHADE ONE BOX

This clock face shows the time a plane left Perth for Sydney one afternoon.



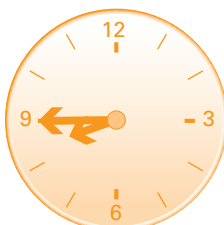
The plane trip took $5\frac{1}{2}$ hours. What time would the clock show when the plane arrives in Sydney?



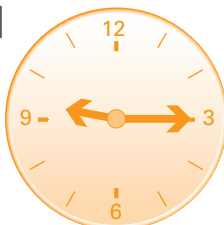
9:45 p.m.



8:30 p.m.



8:45 p.m.

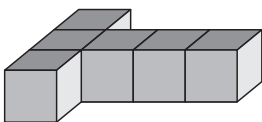


9:15 p.m.

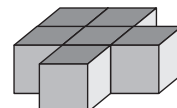
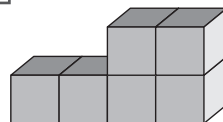
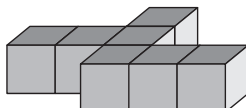
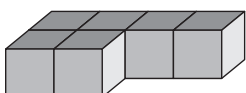
QUESTION 16

SHADE ONE BOX

These objects were made using identical cubes.



Which solid does **not** have the same volume as the solid above?

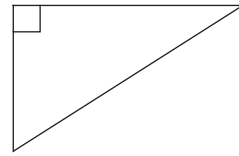
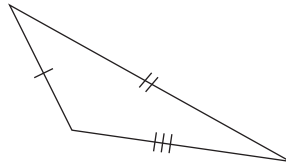
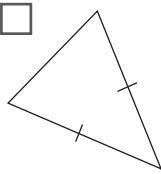
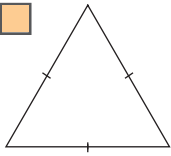


QUESTION 17

SHADE ONE BOX



Which one of these is an equilateral triangle?



QUESTION 18



WRITE YOUR OWN ANSWER

The daily rainfall for Hobart over seven days in March is shown below:

Day	Rainfall (mm)
Sunday	0 mm
Monday	2.6 mm
Tuesday	3.2 mm
Wednesday	16.4 mm
Thursday	2.2 mm
Friday	0 mm
Saturday	1.6 mm

What was the total rainfall for Hobart over this seven-day period?

26

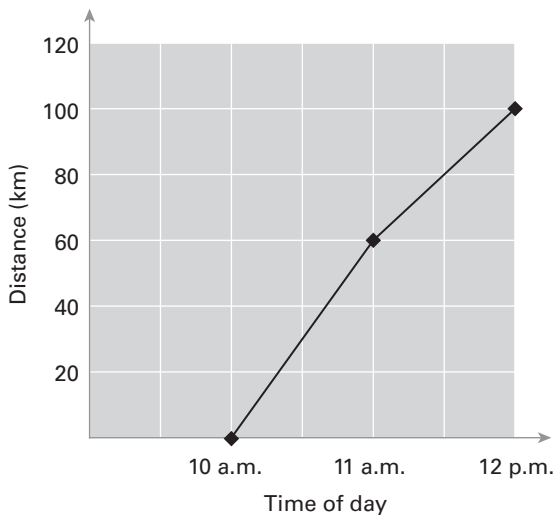
millimetres

QUESTION 19

SHADE ONE BOX



The below graph shows the distance Hasan travelled by car on a single journey.



What was the speed of Hasan's car from 11 a.m. to 12 p.m.?



40 km/h



60 km/h



80 km/h



100 km/h

QUESTION 20



WRITE YOUR OWN ANSWER

Aisha scored the following marks out of 10 in three history tests.

Test 1	5
Test 2	8
Test 3	6
Test 4	?

What mark does Aisha need to score in Test 4 to have an average (mean) of 7 for the four tests?

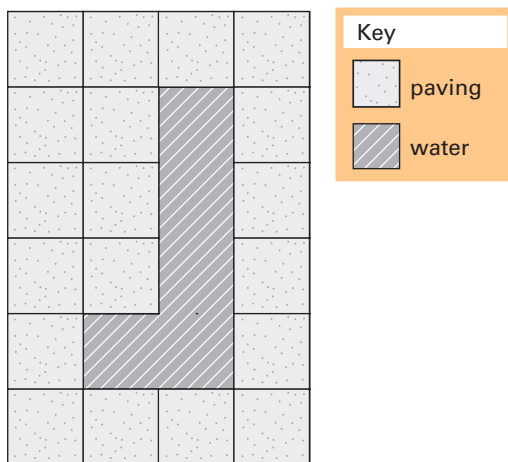
9

QUESTION 21

SHADE ONE BOX



Here is a plan of a water fountain in a park.



The area of the water fountain is 20 m^2 . What is the area of the paving around the water fountain in the park?

☐ 4 m^2

☒ 76 m^2

☐ 19 m^2

☐ 8 m^2

QUESTION 22

SHADE ONE BOX



The table below shows the skiing habits of students in a Year 7 class.

	Do ski	Do not ski
Male	14	3
Female	9	4

What is the probability that a female chosen at random from this class does not ski?

☐ $\frac{4}{9}$

☒ $\frac{4}{13}$

☐ $\frac{4}{7}$

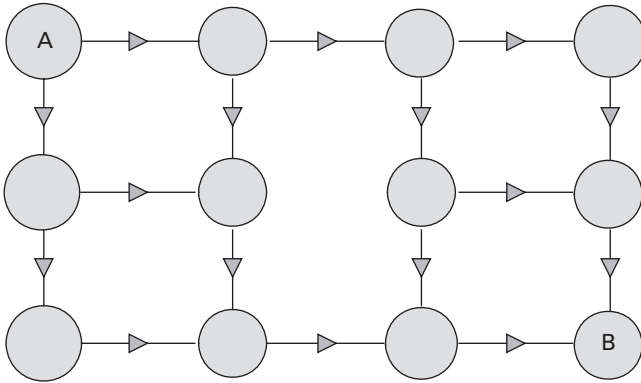
☐ $\frac{4}{30}$

QUESTION 23

SHADE ONE BOX



Simone uses this road map to travel from A to B. Each road can only be travelled in one direction as shown below.



In how many ways can Simone travel from A to B?

☒ 6☐ 7☐ 8☐ 9**QUESTION 24**

WRITE YOUR OWN ANSWER

I think of a number and subtract 3. I then multiply it by 3 and add 15. The result is 42. What is the number?

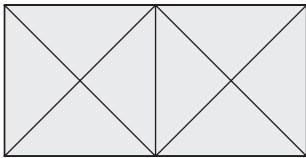
12

QUESTION 25

SHADE ONE BOX



Look at the shape below.



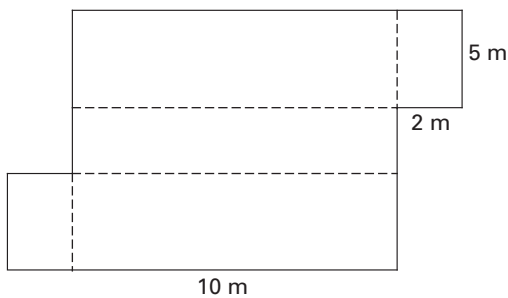
How many triangles are in this shape?

☐ 20☒ 18☐ 14☐ 12**QUESTION 26**

SHADE ONE BOX



The net of a rectangular prism is shown below.



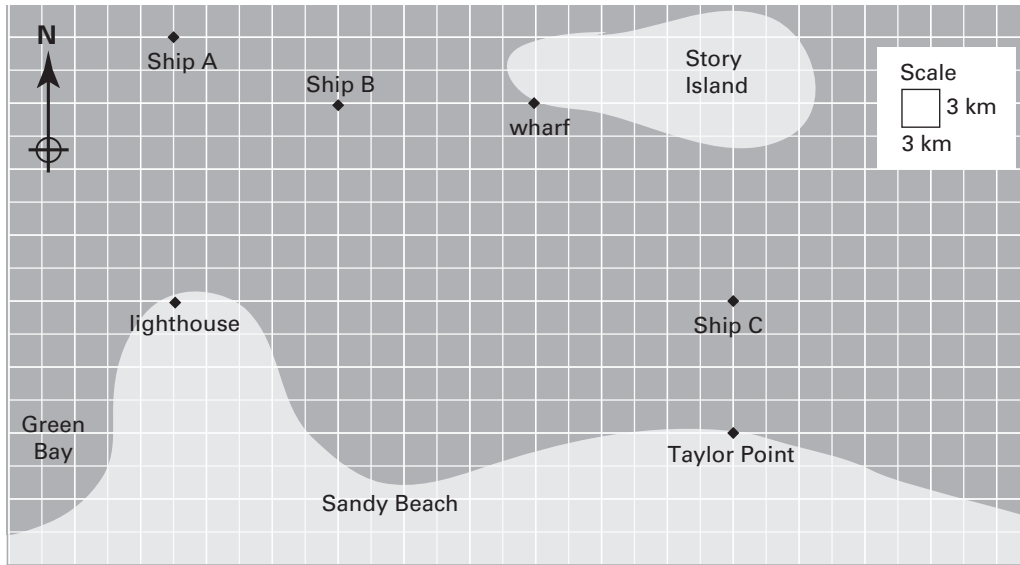
What is the surface area of this rectangular prism?

☐ 170 m²☒ 140 m²☐ 100 m²☐ 90 m²

QUESTION 27

SHADE ONE BOX

Below is a map showing a number of ships near an island and a lighthouse.



Which one of the following statements is correct?

- ☐ The lighthouse is 27 km due south of ship A.
- ☒ Ship B is 18 km west of the wharf.
- ☐ The lighthouse is 50 km due east of Ship C.
- ☐ Ship C is 15 km north of Taylor Point.

QUESTION 28

SHADE ONE BOX

If $a = 1$ and $b = 2$, find the value of $\frac{a}{2} + \frac{b}{3}$.

☐ $\frac{3}{5}$

☐ $\frac{5}{6}$

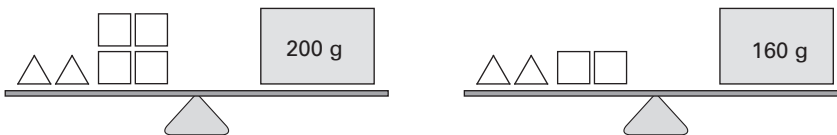
☐ $\frac{7}{5}$

☒ $\frac{7}{6}$

QUESTION 29

SHADE ONE BOX

The masses on the left-hand side of each of the scales below add to the amounts shown on the right-hand side of the scales.



Which of the following combinations represents the weight of each object?

- ☐ $\triangle = 40 \text{ g}$ ☐ $\square = 30 \text{ g}$
- ☐ $\triangle = 20 \text{ g}$ ☐ $\square = 40 \text{ g}$
- ☒ $\triangle = 60 \text{ g}$ ☐ $\square = 20 \text{ g}$
- ☐ $\triangle = 70 \text{ g}$ ☐ $\square = 10 \text{ g}$

QUESTION 30**WRITE YOUR OWN ANSWER**

A piece of metal pipe is cut in half. One half is used. One-third of the second half is cut off, it is 5 m long. What was the original length of the metal pipe?

 metres**QUESTION 31****SHADE ONE BOX**

Which table shows the points which satisfy the rule $y = 2x - 1$?

☐

x	1	3	6	7
y	1	5	11	13

☐

x	2	3	4	5
y	4	5	7	8

☐

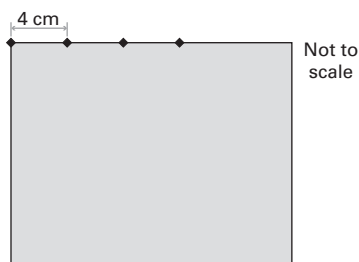
x	2	4	6	8
y	3	7	10	14

☐

x	2	5	8	11
y	0	8	15	21

QUESTION 32**WRITE YOUR OWN ANSWER**

Esther makes a rectangular-shaped birthday cake for her son. The cake is 20 cm long and 16 cm wide. Candles are placed every 4 cm apart and there is a candle in each corner.



How many candles will Esther need on the birthday cake?

 candles