

#### **MATHEMATICS TEST**

#### TEACHERS, PLEASE PRINT CLEARLY Student and school names should be written (in block letters) as they appear on the parent report. 2B Pencil ONLY STUDENT'S FIRST NAME STUDENT'S LAST NAME SCHOOL'S NAME **DATE OF BIRTH** 1. Is this student a Boy or a Girl? Boy Girl 2. Is this student Aboriginal or a Torres Strait Islander? No Yes $\bigcirc$ 3. Does this student have a language background other than English? Yes \_\_\_ **CENTRALLY ASSESSED TASKS** Please shade the appropriate bubble(s) if this student did NOT do the task. **Short Answer Questions Extended Tasks**

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**First Name** 

**Last Name** 

#### **Year 7 Practice Questions**

P1 How many days in one week?

2

Shade one bubble

10

**P2** 

5

× 3

Write one number in each box

Shade one bubble

**P3** Use the numbers 1, 2, 3 to show the order of these capital letters in the alphabet.

X

В

M

Year 7 Mathematics - This task will take 45 minutes.

Students are NOT permitted to use calculators.

1 15 = 30 ? 2

What sign is needed to make this number sentence true?

÷

\_

×

+

2

		Owns a mobile phone			
		Yes	No		
Owns a computer	Yes	Tim	Anita		
	No	Sue	Kevin		

Who owns a computer but does NOT own a mobile phone?

Anita

Kevin

Sue

Tim

**3** A meeting started at 10:20 am and finished 70 minutes later.

Write one number in each box

What time did the meeting finish?

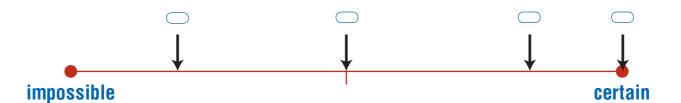


4 A juice costs \$3.92. **About** how much do 6 juices cost?

Shade one bubble

- \$18
- \$24
- \$30
- \$36
- **5** Which of these is the coldest temperature?
  - ─ -8°C
  - 9°C
  - ─ 20°C
  - ─ -16°C
- 6 Sally has won 8 out of 10 of her hurdle races.

Which position on this probability scale best shows her chance of winning her next race?



FLOUR 5.25 KG Jackie bought this bag of flour.
She used 2.35 kg to make some cakes.

How much flour is left in the bag?

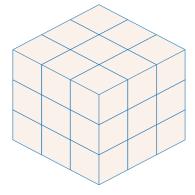
- 2.10 kg
- 2.90 kg
- 3.10 kg
- 3.90 kg

Glenn thought of a number. He multiplied it by 9 and then added 9. He ended up with 81.

What number did Glenn start with?

- 1
- 8
- 9
- 10

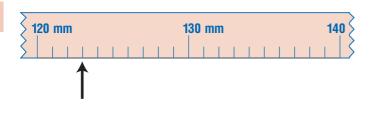
9



How many small cubes are used to make this large cube?

- **27**
- 36
- <u>54</u>

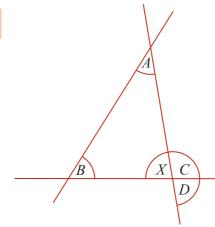
10



What measurement is the arrow pointing to?

- 120.3 mm
- 120.4 mm
- 123 mm
- 124 mm

- $\bigcirc$  12 × 12
- 18 × 12
- $\bigcirc$  25 × 5
- 48 × 12

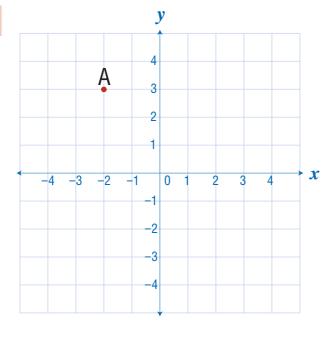


In this diagram, which angle is the same size as angle *X*?

- $\bigcirc$  A
- $\bigcirc$  B
- $\bigcirc$  C
- $\bigcirc$  D

- **13** About how much liquid does a normal coffee mug hold?
  - 25 mL
  - 250 mL
  - 750 mL
  - 1250 mL

14



What are the coordinates of point A?

- $\bigcirc (3,-2)$
- $\bigcirc (3,2)$
- $\bigcirc$  (-2, 3)
- $\bigcirc$  (-2, -2)

There are 600 children at a school. Each classroom has 25 students.

Shade one bubble

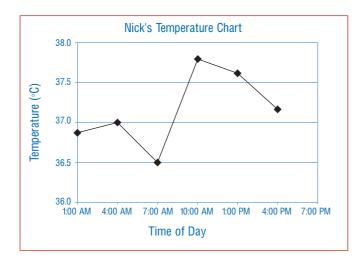
- How many classrooms are there?
- **20**
- **24**
- **28**
- 30
- A plane leaves Melbourne at 10:30 am and arrives in Perth  $4\frac{1}{4}$  hours later. The time in Perth is 2 hours behind Melbourne.

What time will it be in Perth when the plane lands?

- 11:45 pm
- 12:45 pm
- 1:45 pm
- 2:45 pm
- 17 Start with 0.2 and count up by 0.4 each time.

Which sequence shows this rule?

- 0.2, 0.6, 1.0, 1.4, ...
- 0.2, 0.6, 1.2, 2.0, ...
- 0.2, 0.6, 0.10, 0.14, ...
- 0.2, 0.6, 0.12, 0.20, ...
- 18



What was Nick's temperature at 1 pm?

- 36.5°C
- 36.9°C
- 37.6°C
- 38.0°C

Which of these angles is closest in size to a right angle?

Shade one bubble







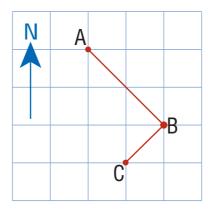


**20** Four identical books weigh 6.8 kg in total.

What is the weight of one book?

- 0.7 kg
- 1.4 kg
- 1.7 kg
- 3.4 kg

Use this map to answer questions 21 and 22.

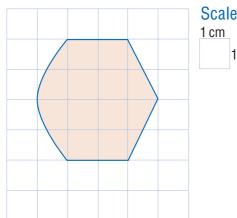


The map shows a path from A to B to C. Complete the following directions.

- **21** First travel from A to B in the direction
  - O North-East.
  - North-West.
  - South-East.
  - South-West.

- 22 At point B turn
  - \_\_\_\_ 25°

  - \_\_\_\_\_ 75°
  - 90°



Scale

1 cm

The area of this shape is closest to

- 10 cm<sup>2</sup>
- 12 cm<sup>2</sup>
- 14 cm<sup>2</sup>
- 16 cm<sup>2</sup>

Shade one bubble

24  $8 \times 0.14$  is equal to

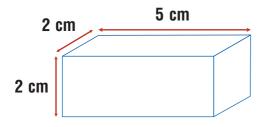
- 0.112
- 1.12
- 11.02
- 11.2

25 Two dice, with faces numbered 1 to 6, are thrown.

What is the chance that the two uppermost numbers add up to 3?

- certain
- unlikely
- very likely
- impossible

26 What is the volume of this prism?



- $\bigcirc$  9 cm<sup>3</sup>
- → 12 cm<sup>3</sup>
- 18 cm<sup>3</sup>
- $20 \text{ cm}^3$

$$\times$$
 2



In a class of 24 students,  $\frac{3}{8}$  of them wear glasses. 29

Shade one bubble

How many students do **NOT** wear glasses?

- $\supset$  12
- → 15
- $\supset$  18
- **21**

30

$$12 - (? - 3) = 4$$

What is the missing number?

- 11
- 19

31

$$5, 4\frac{1}{4}, 3\frac{1}{2}, \dots$$

What is the next number in the sequence?

- $2\frac{1}{4}$   $2\frac{1}{8}$   $2\frac{3}{4}$   $3\frac{3}{4}$

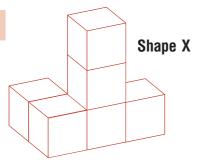
32

Solve for *x* 

$$x + 4 = 7$$

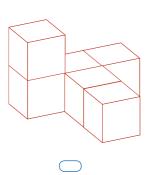
- 3

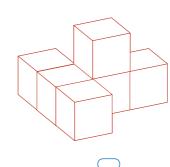
- $\bigcirc$  11

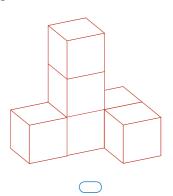


Shade one bubble

Shade the bubble under the shape that is **NOT** the same as Shape X.







**34** Solve for x

$$4x + 6 = 9$$

$$x = \frac{4}{3}$$

$$x = \frac{4}{15}$$

$$x = \frac{15}{4}$$

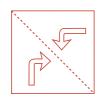
**35** Carl paints an arrow on paper.

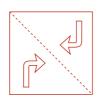
While the paint is wet, he folds the paper along the dotted line.

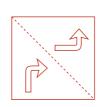
When he unfolds the paper, what will it show?



















- 0.84 litres is equal to
- 8.4 mL
- 84 mL
- 840 mL
- 8400 mL

Shade one bubble

37

What are the mean and mode of these numbers?

- $\bigcirc$  mean = 8, mode = 7
- $\bigcirc$  mean = 7, mode = 8
- $\bigcirc$  mean = 7, mode = 7
- $\bigcirc$  mean = 8, mode = 8

Write one number in each box

**38** S

Solve for *x* 

$$15 - 2x = 9$$

$$\chi =$$

**39** Complete the table using the rule

$$y = 9 - 3x$$

x	2	1	0	
у	3		9	0

A box contains 5 green balls, 4 white balls, 3 black balls and 3 red balls. One ball is picked out without looking.

Shade one bubble

What is the probability the ball is green?

- $\frac{1}{2}$
- $\frac{1}{3}$
- $\frac{1}{4}$
- $\frac{1}{5}$

- Which of these scores on a test is the highest percentage?
  - 20 out of 30
  - 23 out of 50
  - 20 out of 40
  - 13 out of 20
- **42** A train is moving at 18 km/h.

How long does it take to travel 30 km?

- 1 hr 12 mins
- 1 hr 20 mins
- 1 hr 24 mins
- 1 hr 40 mins
- **43** 9, 1, 2, 4, 3

What is the median value of these five numbers?

- 2
- 3
- 4
- 5
- Write the letters **A**, **B**, **C**, **D** to order these number from smallest to largest value.

5.4 x 10<sup>2</sup>

A

3.2 x 10<sup>3</sup>

B

4.21 x 10<sup>2</sup>

C

- 4.04 x 10<sup>2</sup>
  - D

Write one letter in each box

smallest

largest



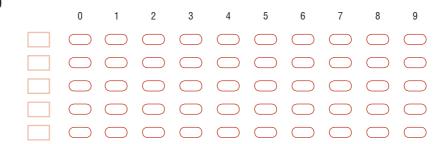


## Year 7 Mathematics

## **Extended Tasks**

# PLEASE DO NOT TURN THE PAGE UNTIL YOUR TEACHER TELLS YOU TO.

**Marker ID** 





### **Year 7 Mathematics Extended Tasks**

These tasks will take 40 minutes.

Please print your name here.

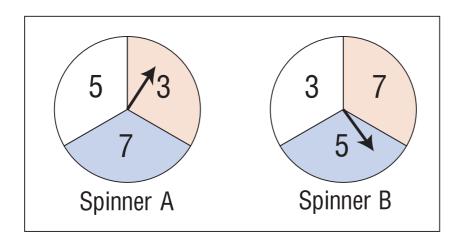
**First Name** 

**Last Name** 

#### Students are NOT permitted to use calculators.

#### Task 1 - Spinners

The arrows on Spinner A and Spinner B are spun.



If an arrows stops on a line it is spun again.

The two numbers are added to get a total score.

For example, in the diagram above, the numbers 3 and 5 are added to get a total score of 8.

Questions 1 to 5 are about the total scores when Spinners A and B are spun.

	( Write your answer in each space )			DO NOT WRITE IN THIS AREA				
1	What is the highest total score possible?		M	0	1			
2	What are the possible total scores?		M	0	1	2		
3	List all the ways to get a total score of 10.		M	0	1	2		
4	What is the chance of getting a total score of 9?		M	0	1			
5	What is the chance of getting a total score of 6?		M	0	1			

#### Task 2 - Town Map

This map shows a country town. Anne's house is at grid reference E4. C D Ε SCHOOL APPLE ST 2 Scale Train Station Anne's house 250 m 4 5 SHOPS River 6 BUSH ST Oval 7 Write your answer in each space DO NOT WRITE IN THIS AREA 0 M 1 6 What is the grid reference of the train station? 7 What direction is the police station from the oval? M What is the direct (straight line) distance from the front of 1 8 Anne's house to the carpark entrance near the shops? metres What is the shortest distance by road from Anne's house M 1 9 to the entrance of the carpark near the shops? metres Write down the name of one street that is parallel to M 1 10 the train line. Write down the name of one street that is perpendicular to M 1 11 the train line. Draw your answer on the map 0 1 M On the map, draw in the shortest path by road to drive from Anne's house to the 12 carpark near the train station.

#### Task 3 - Number Puzzles

A puzzle uses these five number cards.

1

3

5

7

9

Write one number in each box

To solve the puzzle you must put one card on each blank space. You may use each card only once in each solution. For example:

Example A

+

5

Solution 1

4

6

1

+

5

Solution 2

4

1

5

3

+

6

9

#### Puzzle 1

To solve Puzzle 1 you must use two of these cards

1

3

5

7

9

Puzzle 1

3

2



6



13 Find one way to solve Puzzle 1.

Solution 1

3



2

6

14 Find another way to solve Puzzle 1.

Solution 2

3



2

6

DO NOT WRITE IN THIS AREA

 $\mathsf{M}$ 

0

 $\mathsf{M}$ 

0

#### Puzzle 2

To solve Puzzle 2 you must use all of these five cards

П

3

5

7 9

3

Puzzle 2





8

15 Find one way to solve Puzzle 2.

Solution 1



3

8

8

16

Find another way to solve Puzzle 2.

Solution 2



8



3

1



8

DO NOT WRITE IN THIS AREA

0

1

0

1