EXAM PAPER

Maths Year 7 — Practice Exam 2

PREVIEW
This file has the first 30 of the 60 questions in this paper. The rest is locked: it comes with a PrepNest plan, or with the paper itself for VCE.

Total time: 80 minutes

SECTIONS IN THIS PAPER

- Numeracy — non-calculator — 40 min (no calculator)
- Numeracy — calculator — 40 min (calculator allowed)

INSTRUCTIONS

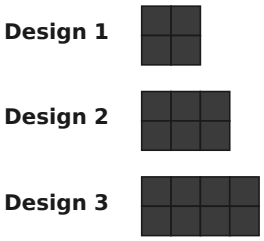
Answer every question you can. Write your working in the space provided for long-answer questions. Marking guidance and full explanations are provided in the separate answer key.

Numeracy — non-calculator

40 minutes • No calculator

1. The perimeter of a rectangle is given by P = 2l + 2w.
What is P when l = 7 and w = 3?

2. The pattern continues in the same way.
Which rule gives the number of tiles, t, in Design n?



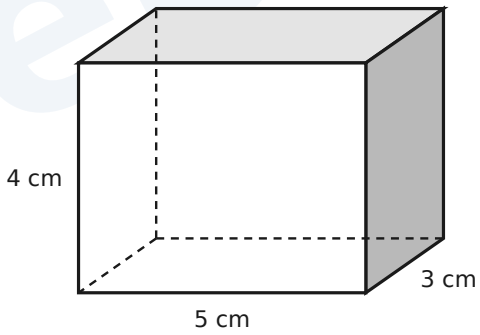
A. t = n + 2

B. t = 2n + 2

C. t = 2n

D. t = 4n

3. What is the volume of this rectangular prism?



cm³

4. What is the mean of 4, 7, 9 and 12?

5. Which is the best estimate of 4.87 × 19.6?

A. 10

B. 50

C. 100

D. 1000

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6. What is the value of $2^3 \times 5$?

A. 16

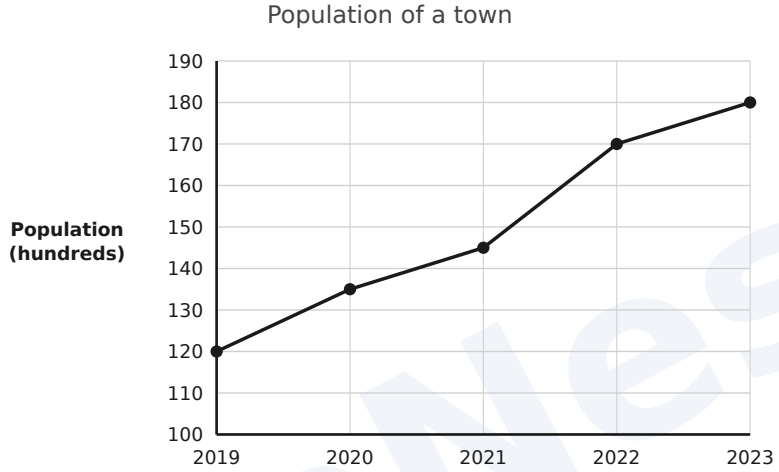
B. 30

C. 40

D. 1000

7. What is the highest common factor of 18 and 24?

8. Between which two years did the population grow the most?



A. 2019 and 2020

B. 2020 and 2021

C. 2021 and 2022

D. 2022 and 2023

9. What is the value of $20 - 12 \div 4 \times 2$?

A. 1

B. 4

C. 14

D. 16

10. Two angles on a straight line are in the ratio 2 : 3.
What is the size of the larger angle?

A. 60°

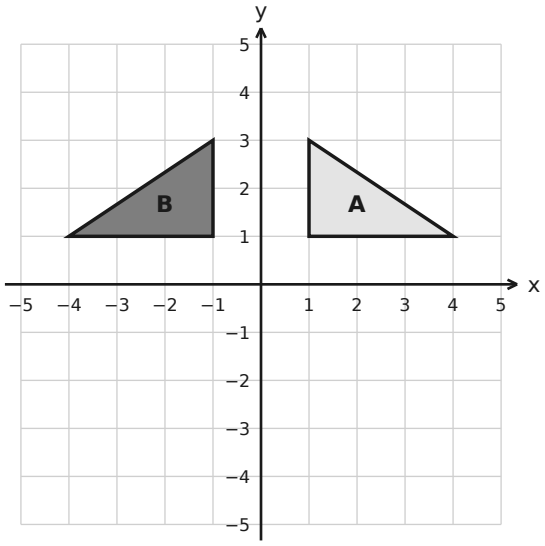
B. 72°

C. 108°

D. 120°

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11. Which transformation moves triangle A onto triangle B?



A. reflection in the y-axis

B. reflection in the x-axis

C. translation 5 units left

D. rotation of 90° about the origin

12. The scores in a quiz were 31, 35, 42, 47, 47 and 50.
Which stem-and-leaf plot shows these scores?

A

Stem	Leaf
3	1 5
4	2 7
5	0

Key: 3 | 1 means 31

B

Stem	Leaf
3	1 5
4	2 7 7
5	5

Key: 3 | 1 means 31

C

Stem	Leaf
3	1 5 7
4	2 7
5	0

Key: 3 | 1 means 31

D

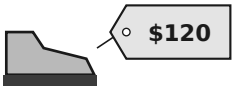
Stem	Leaf
3	1 5
4	2 7 7
5	0

Key: 3 | 1 means 31

13. What is 4.5 ÷ 0.5?

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14. The runners are on sale at 25% off.
What is the sale price?



Runners

A. $30

B. $90

C. $95

D. $100

15. On a map where 1 cm represents 250 m, two towns are 6 cm apart.
How far apart are the towns in real life?

A. 1.5 km

B. 2.5 km

C. 15 km

D. 150 m

16. What is the relative frequency of rolling a 4?

Results of 50 rolls of a dice

Number rolled	1	2	3	4	5	6
Frequency	7	9	8	10	6	10

A. 0.1

B. 0.2

C. 1/6

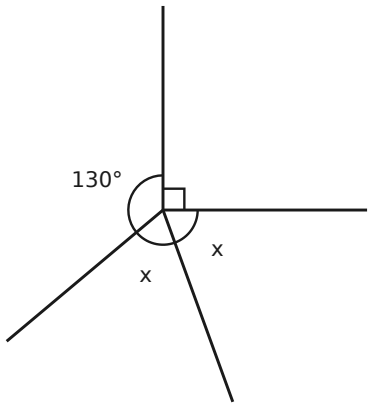
D. 10

17. The pattern in the table continues.
What is the value of y when x = 20?

x	1	2	3	4
y	5	8	11	14

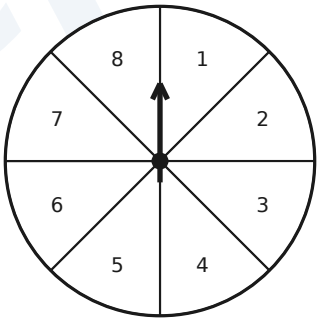
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18. Four angles meet at a point. The two angles marked x are equal.
What is the value of x, in degrees?



19. In a club, the ratio of boys to girls is 2 : 3. There are 12 boys.
How many girls are in the club?

20. The spinner has 8 equal sectors. What is the probability that it lands on a prime number?



A. 1/2

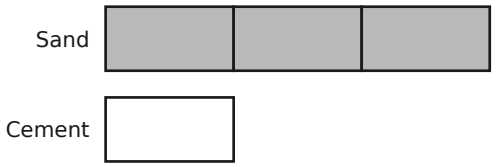
B. 3/8

C. 5/8

D. 1/4

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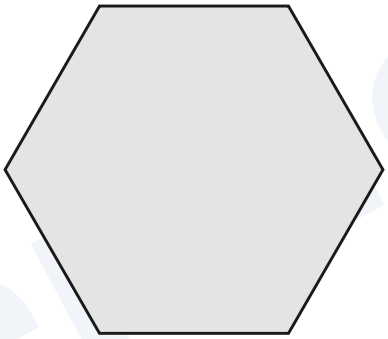
21. Concrete is mixed from sand and cement in the ratio 3 : 1.
How many buckets of sand are needed with 8 buckets of cement?



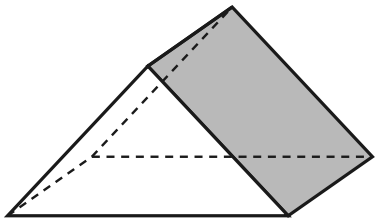
buckets

22. If a = 3 and b = −2, what is the value of 2a + 5b?

23. What is the order of rotational symmetry of this regular hexagon?



24. How many faces, edges and vertices does this triangular prism have?



A. 6 faces, 9 edges, 5 vertices

B. 5 faces, 9 edges, 6 vertices

C. 5 faces, 8 edges, 6 vertices

D. 5 faces, 6 edges, 9 vertices

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25. Which expression is the same as 3a + 5b − a + 2b?

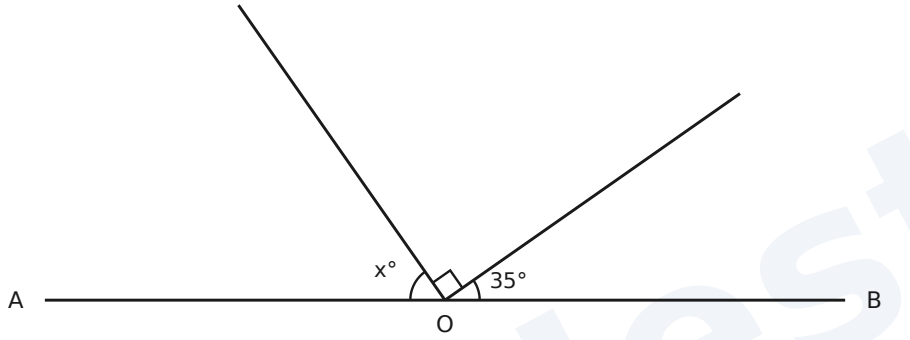
A. 2a + 7b

B. 4a + 7b

C. 2a + 3b

D. 9ab

26. AOB is a straight line.
What is the value of x?



27. Which of these is the largest?

A. 0.68

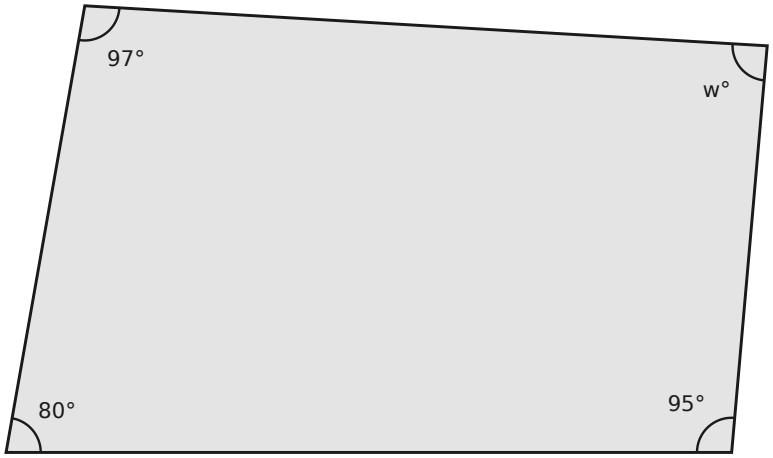
B. 2/3

C. 7/10

D. 69%

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28. What is the value of w?



29. The mean of five numbers is 6. Four of the numbers are 4, 5, 7 and 8.
What is the fifth number?

30. What is the value of $-8 + 3 - (-4)$?

A. -9

B. -1

C. 1

D. 15

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30 questions locked, up to question 60.

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PREVIEW

That’s the end of the preview

You’ve seen the first 30 of the 60 questions in Maths Year 7 — Practice Exam 2. The full paper is worth 60 marks.

STILL TO COME	QUESTIONS	MARKS
Numeracy — calculator	30	30

The full paper comes with

- Every question, printed exactly like the ones in this preview
- The complete answer key, with the working behind every mark
- A topic report after marking, showing what to practice next

Get the full paper at

prepnest.com.au/practice/exams/math-year_7-2

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