EXAM PAPER

# Maths Year 7 — Practice Exam 3

**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. Which quadrilateral has exactly one pair of parallel sides?

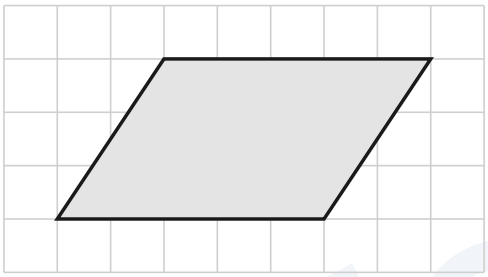
A. rhombus

B. kite

C. rectangle

D. trapezium

2. What is the area of the parallelogram?



Each square is 1 cm²

A. 12 cm²

B. 15 cm²

C. 16 cm²

D. 21 cm²

3. A cube has a volume of 64 cm³. What is the length of each edge?

A. 4 cm

B. 8 cm

C. 16 cm

D. 21.3 cm

4. What is the ratio 24 : 36 in simplest form?

A. 2 : 3

B. 3 : 2

C. 4 : 6

D. 6 : 9

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5. Tai must be at Balmain by 11:30 am.
What is the latest ferry he can catch from Circular Quay?

| Wharf | Ferry 1 | Ferry 2 | Ferry 3 |
|---|---|---|---|
| Circular Quay | 9:10 | 10:40 | 12:10 |
| Milsons Point | 9:18 | 10:48 | 12:18 |
| Luna Park | 9:24 | 10:54 | 12:24 |
| Balmain | 9:41 | 11:11 | 12:41 |

A. 9:10 am

B. 10:40 am

C. 11:11 am

D. 12:10 pm

6. A pencil costs $0.45.
How much do 8 pencils cost?

$ ____

7. Which term is a like term to 5xy?

A. 5x

B. 2yx

C. 5y

D. $xy^2$

8. Which of these is NOT equal to 3/4?

A. 0.75

B. 75%

C. 6/8

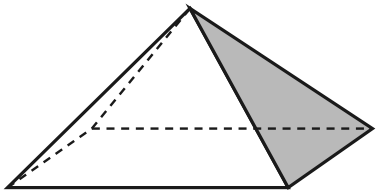
D. 0.34

9. Kim thinks of a number.
She doubles it and then subtracts 5.
The answer is 17.
What number did Kim think of?

____

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10. How many edges does a square pyramid have?



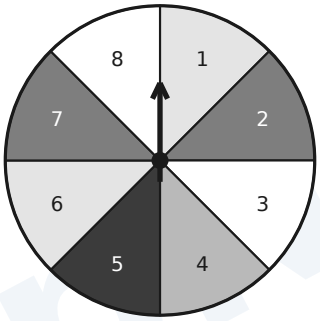
A. 5

B. 6

C. 8

D. 9

11. Jai spins this spinner once.
What is the probability that it lands on a number greater than 5?




A. 3/8

B. 5/8

C. 1/2

D. 3/5

12. What is the value of $\sqrt{81} + 3^2$?

A. 12

B. 15

C. 18

D. 84

13. A coin is tossed and a dice numbered 1 to 6 is rolled.
How many outcomes are in the sample space?

A. 6

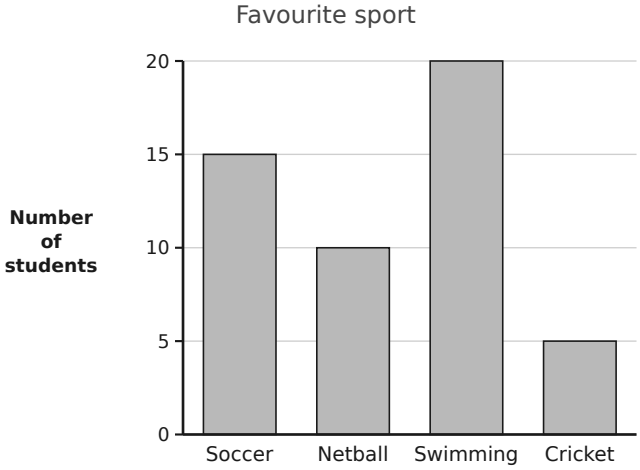
B. 8

C. 12

D. 36

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14. Every student surveyed chose one sport.
What percentage of the students chose soccer?




[ ] %

15. Which expression is equal to 4 × (x + 3)?

A. 4x + 3

B. 4x + 12

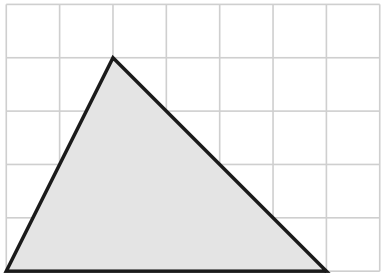
C. x + 12

D. 4x + 7

16. A rectangle has a perimeter of 30 cm and a length of 9 cm.
What is its area, in square centimetres?

[ ]

17. What is the area of the triangle?



Each square is 1 cm by 1 cm

A. 10 cm²

B. 12 cm²

C. 16 cm²

D. 24 cm²

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18. What is 2/3 × 9/10?

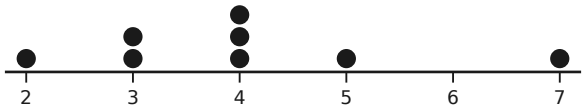
A. 11/13

B. 18/13

C. 1 1/2

D. 3/5

19. The dot plot shows how many hours of sport 8 students play each week.
What is the mean number of hours?




**Hours of sport per week**

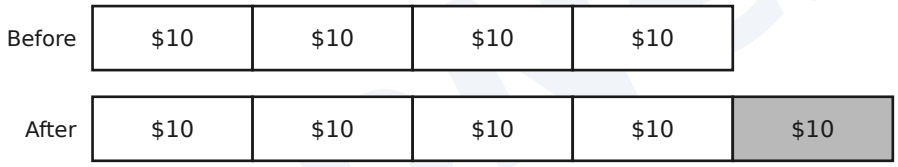
A. 3.5

B. 4

C. 4.5

D. 5

20. A price of $40 rises by 25%. The bar model shows the price before and after the rise.
What is the new price?




$ ____

21. How many square centimetres are in 1 square metre?

A. 100

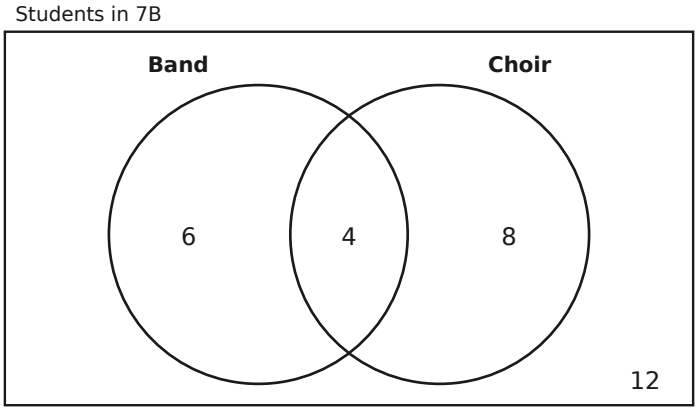
B. 1000

C. 10 000

D. 1 000 000

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22. A student from 7B is chosen at random.
What is the probability that the student is in the band?




A. 1/5

B. 2/15

C. 10/13

D. 1/3

23. Which rule matches the table of values?

| x | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| y | 1 | 3 | 5 | 7 |

A. y = x + 1

B. y = 2x + 1

C. y = 3x

D. y = x + 2

24. What is 0.3 × 0.4?

A. 0.012

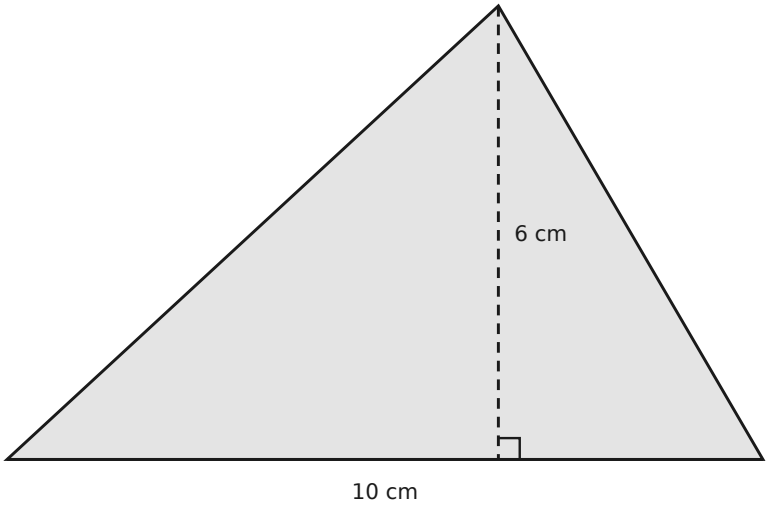
B. 0.12

C. 0.7

D. 1.2

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25. What is the area of this triangle?



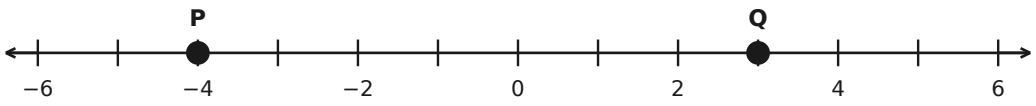

cm²

26. The stem-and-leaf plot shows the scores of 9 players in a game.
What is the median score?

| Stem | Leaf |
|---|---|
| 1 | 2 5 8 |
| 2 | 0 3 3 7 |
| 3 | 1 4 |

Key: 2 | 3 means 23

27. Which calculation gives the distance from P to Q on the number line?




A. 3 − 4

B. −4 − 3

C. 4 − 3

D. 3 + 4

28. Which point lies on the line y = 2x + 1?

A. (2, 4)

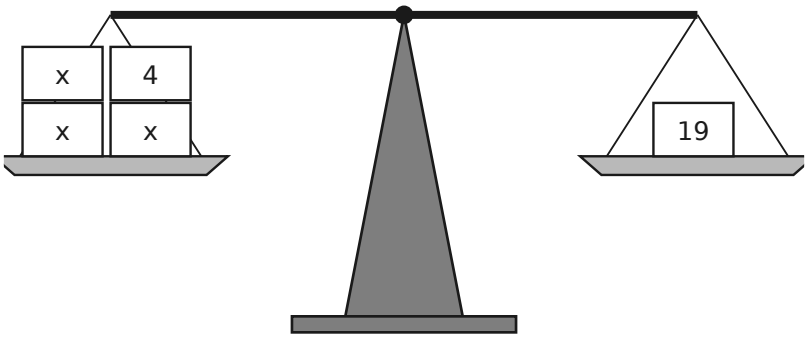
B. (3, 6)

C. (0, 2)

D. (1, 3)

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29. The scales are balanced.
Each block marked x has the same value.
What is the value of x?




A. 5

B. 7

C. 15

D. 23

30. Each design is a rectangle of tiles. Design n has n rows, and each row has n + 1 tiles.
How many tiles are in Design 6?

**Design 1**



**Design 2**



**Design 3**



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31.

32.

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**55.**

**56.**

**57.**

**58.**

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**59.**

**60.**

- A
- B
- C
- D

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 3. 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

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