EXAM PAPER

Maths Year 9 — 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. Which is 34 500 000 written in scientific notation?

A. 3.45×10^{7}

B. 3.45×10^{8}

C. 3.45×10^{6}

D. 345×10^{5}

2. What is the circumference of a circle with a radius of 6 cm, in terms of π?

A. 6π cm

B. 12π cm

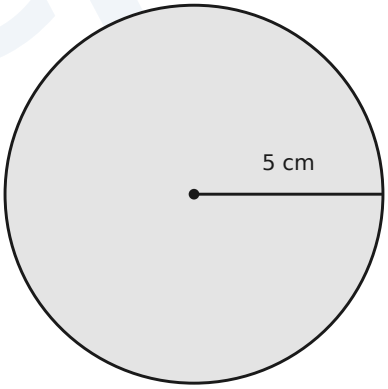
C. 24π cm

D. 36π cm

3. A car travels 240 km in 3 hours.
At the same speed, how far will it travel in 5 hours?

_____ km

4. What is the area of the circle?



A. 10π cm²

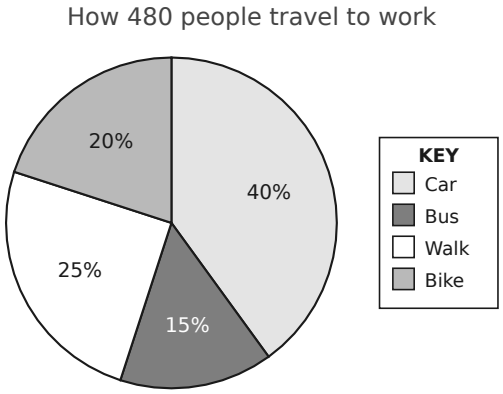
B. 25π cm²

C. 5π cm²

D. 100π cm²

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5. How many of the 480 people travel to work by bus?



6. Which is $x^2 + 7x$ fully factorised?

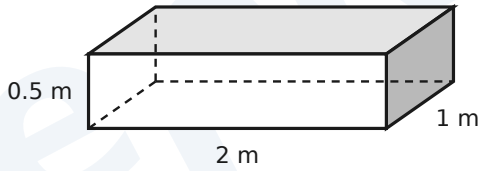
A. $x(x + 7)$

B. $7x(x + 1)$

C. $x(7x)$

D. $(x + 7)^2$

7. A tank is 2 m long, 1 m wide and 0.5 m deep.
How many litres does it hold when full?



A. 3.5 L

B. 100 L

C. 1000 L

D. 10 000 L

8. What is the value of $7^0 + 4^{-1}$?

A. 4 1/4

B. 3/4

C. 11

D. 1 1/4

9. A building plan is drawn to a scale of 1 : 200. A wall is 6.5 cm long on the plan.
How long is the real wall?

A. 1.3 m

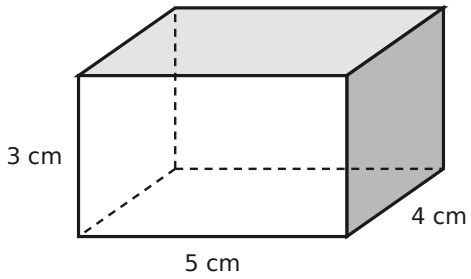
B. 3.25 m

C. 13 m

D. 130 m

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10. What is the total surface area of this rectangular prism?



cm²

11. The mean of five numbers is 12.
Four of the numbers are 8, 10, 15 and 11.
What is the fifth number?

12. The table shows how some students travel to school.
A Year 10 student is chosen at random.
What is the probability that they catch the bus?

	Walk	Bus	Car	Total
Year 9	18	25	12	55
Year 10	22	15	8	45
Total	**40**	**40**	**20**	**100**

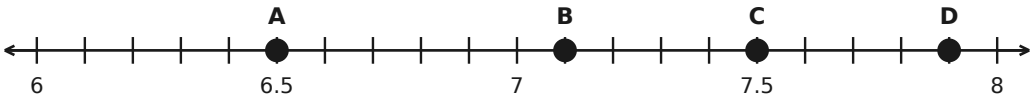
A. 3/20

B. 15/100

C. 1/3

D. 3/8

13. Which point on the number line is closest to √50?



A. A

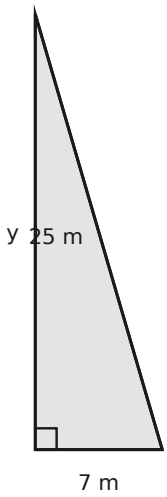
B. B

C. C

D. D

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14. What is the value of y?



not to scale

A. 18 m

B. 24 m

C. 26 m

D. 32 m

15. What is $(6 \times 10^4) \times (3 \times 10^2)$ in scientific notation?

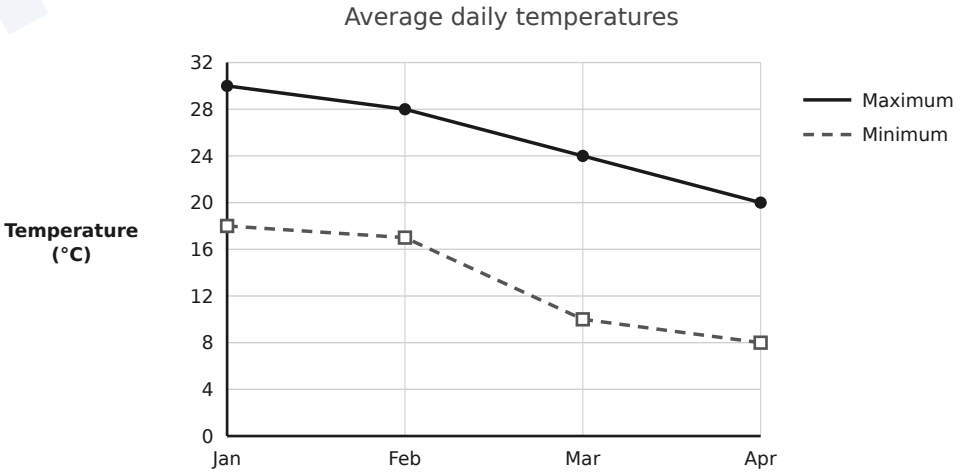
A. 18×10^8

B. 1.8×10^8

C. 9×10^6

D. 1.8×10^7

16. In which month was the difference between the maximum and minimum temperatures the greatest?



A. January

B. February

C. April

D. March

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17. What is the sum of the interior angles of an octagon?

A. 135°

B. 900°

C. 1080°

D. 1440°

18. What is 0.04963 rounded to two significant figures?

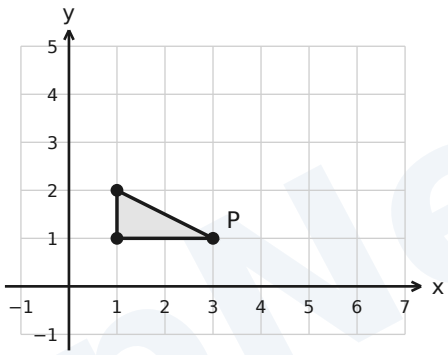
A. 0.05

B. 0.049

C. 0.050

D. 0.0496

19. The triangle is enlarged by a scale factor of 2, with the origin as the centre of enlargement. Where does point P move to?



A. (5, 3)

B. (3, 2)

C. (6, 1)

D. (6, 2)

20. Which of these is $4x^2 + 12x$ fully factorised?

A. $4(x^2 + 12x)$

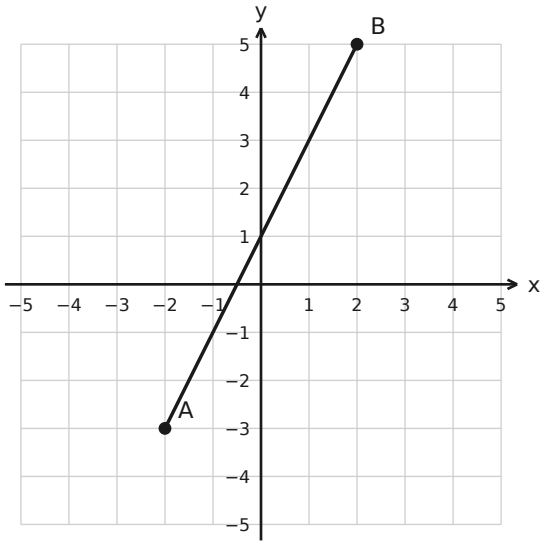
B. $x(4x + 3)$

C. $4x(x + 3)$

D. $2x(2x + 12)$

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21. What is the gradient of the line segment AB?



A. 1/2

B. −2

C. 2

D. 8

22. Solve $(2x - 1) \div 3 = 5$.

A. 2.67

B. 7

C. 8

D. 16

23. What is the value of $(-3)^2 - 2 \times (-4)$?

24. Which of these numbers is the largest?

A. 3.9×10^{-2}

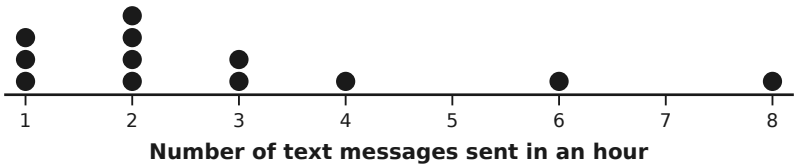
B. 4.2×10^{-3}

C. 5.1×10^{-4}

D. 1.2×10^{-3}

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25. Which word best describes the shape of this distribution?



A. negatively skewed

B. symmetric

C. bimodal

D. positively skewed

26. Which inequality gives all the solutions of $3x - 5 < 13$?

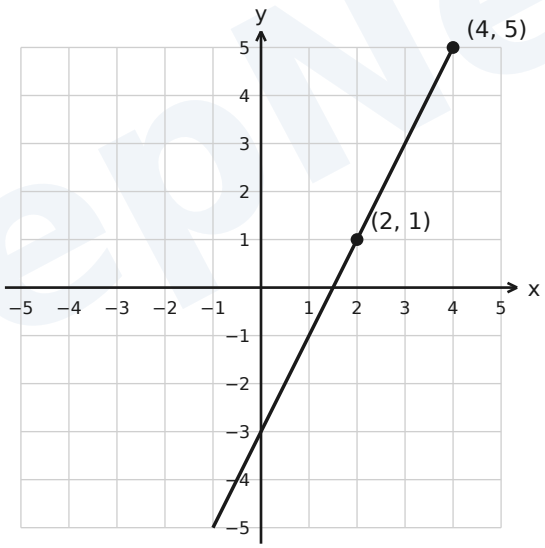
A. $x > 6$

B. $x < 2.67$

C. $x < 18$

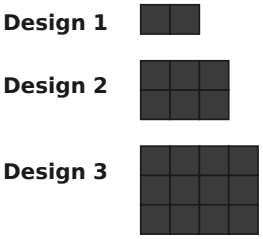
D. $x < 6$

27. The line passes through the points (2, 1) and (4, 5).
At what value does it cross the y-axis?



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28. Each design is a rectangle of tiles, and the pattern continues.
How many tiles are in Design 10?



_____ tiles

29. The table shows how many siblings each student in a class has.
What is the median number of siblings?

Number of siblings	0	1	2	3	4
Frequency	4	9	6	3	1

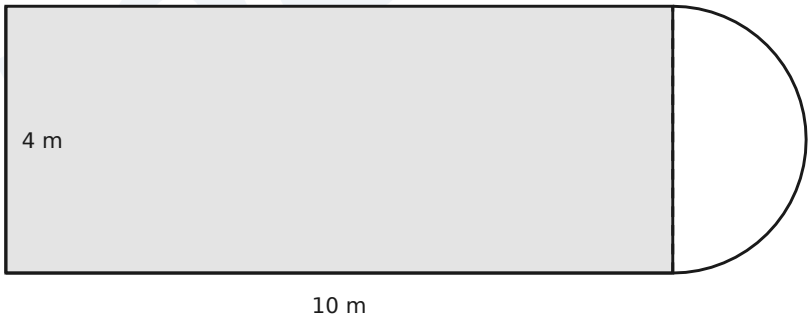
A. 1

B. 2

C. 6

D. 9

30. A garden is a rectangle with a semicircle on one end.
What is the area of the garden?



A. $40 + 4\pi$ m²

B. $40 + 8\pi$ m²

C. $48 + 2\pi$ m²

D. $40 + 2\pi$ m²

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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 9 — 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_9-2

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