EXAM PAPER

Maths Year 8 — 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 of these is equal to $5^7 \div 5^3$?

A. 1^4

B. 5^4

C. 5^{10}

D. 25^4

2. Which of these is equal to $2^5 \times 2^3$?

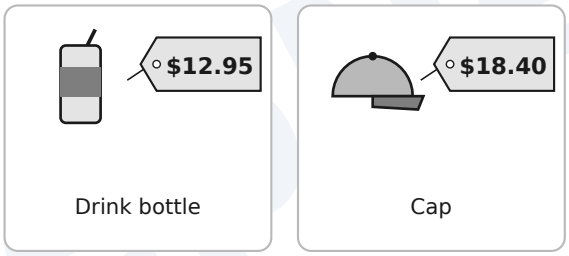
A. 2^8

B. 2^{15}

C. 4^8

D. 4^{15}

3. Ava buys the two items shown.
She pays with a $50 note.
How much change should she get?



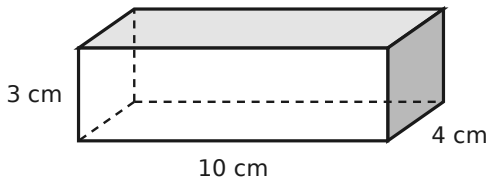
A. $17.55

B. $18.65

C. $19.65

D. $31.35

4. A box is shaped like a rectangular prism.
What is its volume?



A. 17 cm³

B. 60 cm³

C. 164 cm³

D. 120 cm³

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5. A movie starts at 7:50 pm and runs for 2 hours 25 minutes.
At what time does it finish?

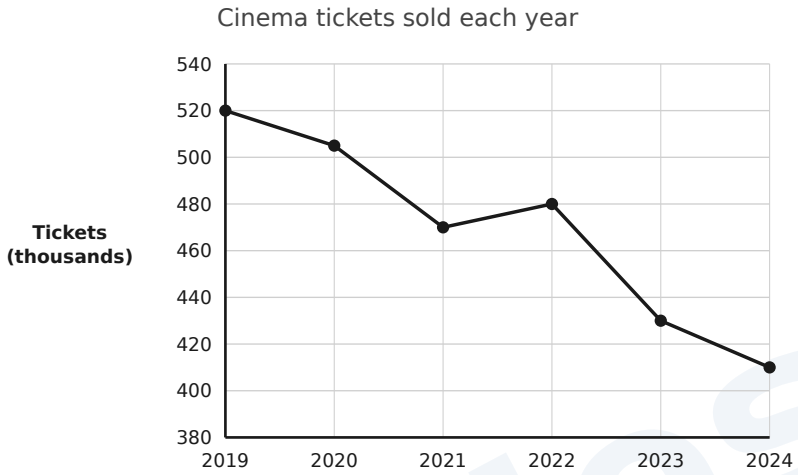
A. 9:15 pm

B. 10:25 pm

C. 9:75 pm

D. 10:15 pm

6. Which statement best describes the data?



A. Ticket sales are generally decreasing.

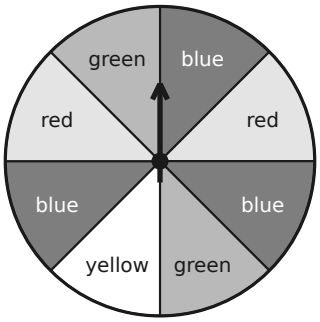
B. Ticket sales are generally increasing.

C. Ticket sales stay the same each year.

D. Ticket sales go up every second year.

7. What is 80 increased by 15%?

8. Lucas spins the arrow on this spinner once.
What is the probability that it stops on blue?



A. 1/8

B. 1/4

C. 3/8

D. 3/5

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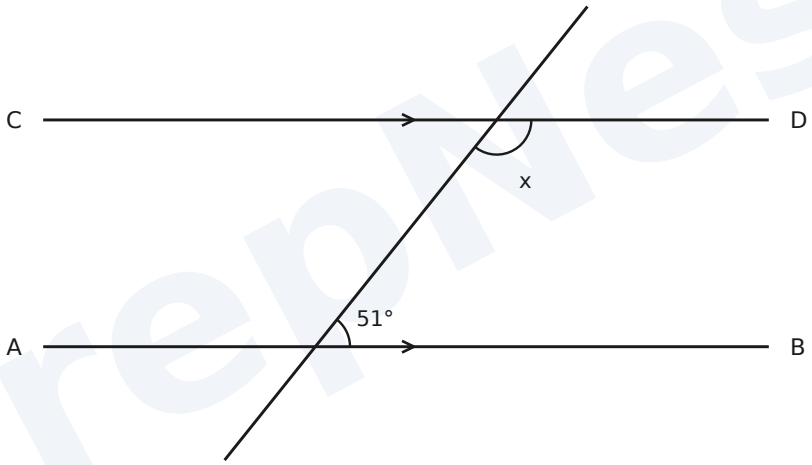
9. What is the account balance after these transactions?

Bank account

Transaction	Amount
Opening balance	$120
Withdrawal	−$75
Withdrawal	−$90
Deposit	+$40

10. A circle has a radius of 10 cm. Using π ≈ 3.14, what is its area, in square centimetres?

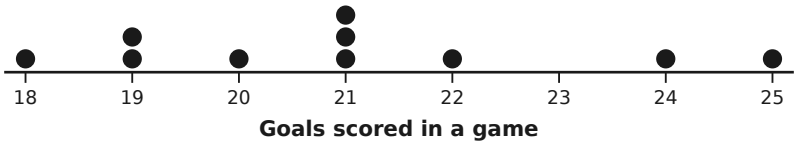
11. Lines AB and CD are parallel.
What is the size of angle x?



°

12. In a class of 30 students, 18 have a pet. A student is chosen at random.
What is the probability, as a decimal, that the student does not have a pet?

13. The dot plot shows the number of goals a netball team scored in each game of its season.
What is the median number of goals?



Goals scored in a game

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14. Which equation has the solution $x = -3$?

A. $2x + 9 = 3$

B. $2x - 9 = 3$

C. $x + 3 = 6$

D. $3x = 9$

15. The price list shows four sizes of rice.
Which size is the best value?

Rice

Size	Price
500 g	$2.50
1 kg	$4.40
2 kg	$8.00
5 kg	$21.00

A. 500 g bag

B. 1 kg bag

C. 5 kg bag

D. 2 kg bag

16. A rectangle 2 cm by 1 cm is enlarged by a scale factor of 3.
What is the area of the enlarged rectangle?

A. 6 cm²

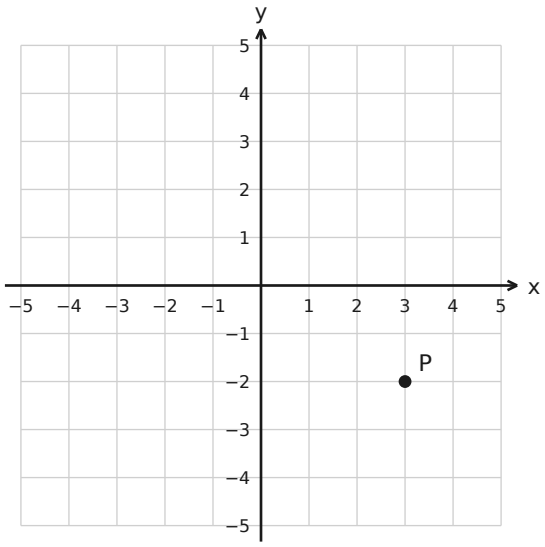
B. 9 cm²

C. 18 cm²

D. 54 cm²

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17. Point P is rotated 180° about the origin.
What are the coordinates of its image?



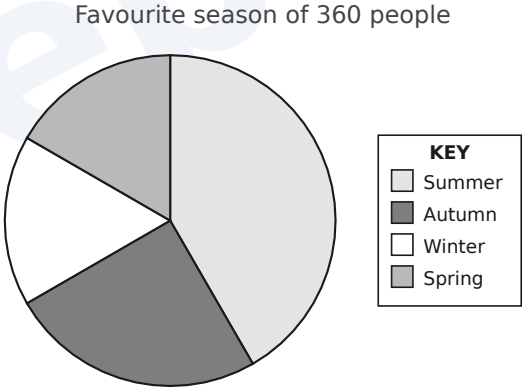
A. (3, 2)

B. (−3, −2)

C. (2, −3)

D. (−3, 2)

18. 360 people chose their favourite season. The winter sector of the pie chart has an angle of 60°.
How many people chose winter?



19. Which fraction can be written as a decimal that stops (terminates)?

A. 1/7

B. 2/3

C. 3/8

D. 5/6

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20. One of these students is chosen at random.
What is the probability that the student is in Year 8 and plays sport?

Students who play sport

	Plays sport	No sport
Year 7	12	8
Year 8	9	11

A. 9/20

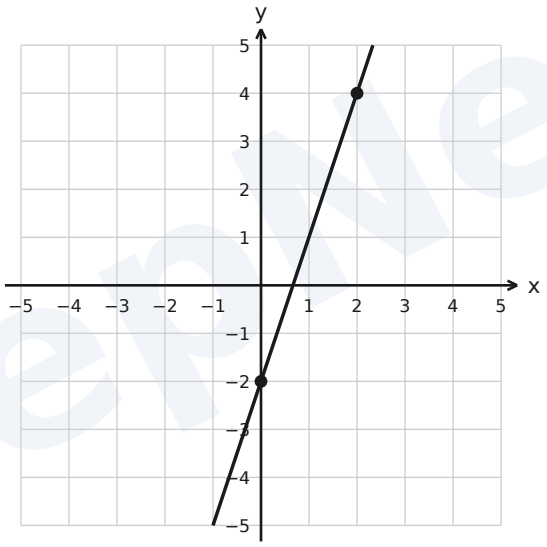
B. 9/40

C. 21/40

D. 9/21

21. Solve 5x + 3 = 2x + 18.

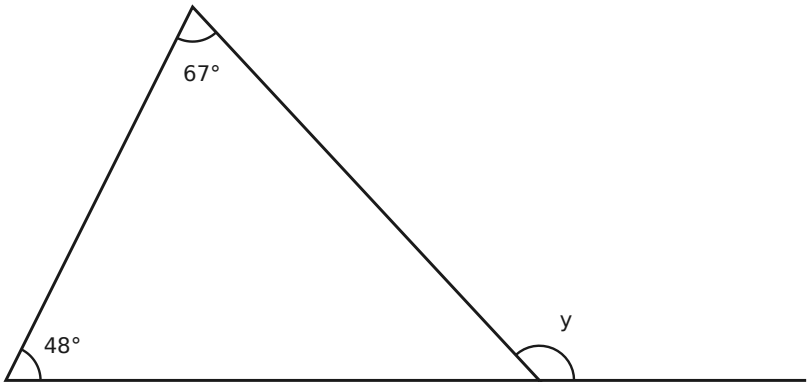
22. What is the gradient of the line?



23. A car uses 8 L of petrol for every 100 km.
How many litres does it use to travel 350 km?

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24. What is the size of angle y?



not to scale

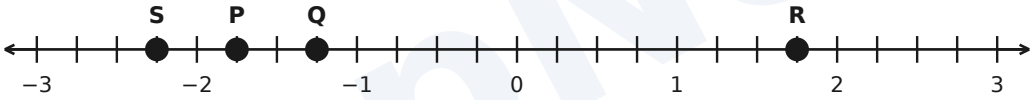
A. 65°

B. 105°

C. 125°

D. 115°

25. Which point is at −1 3/4?



A. P

B. Q

C. R

D. S

26. Which expression is the same as 12a − 18?

A. 6(2a − 3)

B. 6(2a − 18)

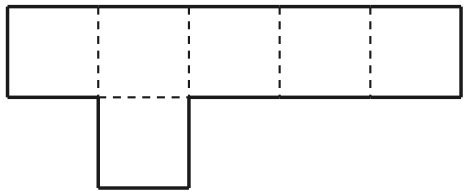
C. 3(4a − 18)

D. 12(a − 6)

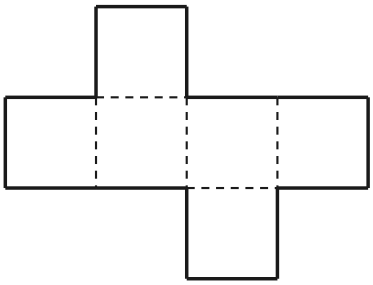
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27. Which net can be folded to make a cube?

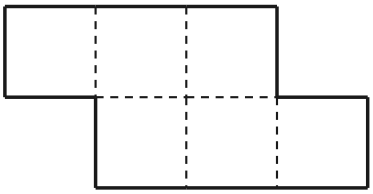
A



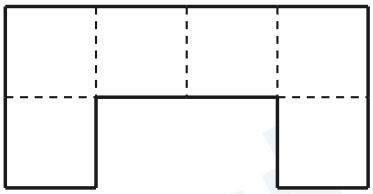
B



C



D



28. What is $-36 \div 4 + (-2)$?

29. Each exterior angle of a regular polygon is 40°.
How many sides does the polygon have?

30. What is the value of $(-3)^2 - 3^2$?

A. −18

B. 12

C. 18

D. 0

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60.

30 questions locked, up to question 60.

PREVIEW

That’s the end of the preview

You’ve seen the first 30 of the 60 questions in Maths Year 8 — 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

prepnest.com.au/practice/exams/math-year_8-3

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