

Master Coaching

Selective Schools

Mathematics Practice Test

MA-09

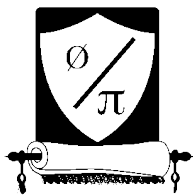
Note ... Correct Answers are provided on a single sheet (as page 8)

There is a blank Answer sheet supplied (as page 9)

There are 40 multiple-choice questions

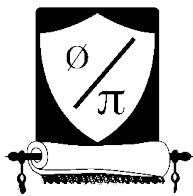
Only choose one of the answers **a**, **b**, **c** or **d** at each question

The time allowed is **40 minutes**.



* circle the letter of the best answer to each question on your answer sheet.

- 1 In an English test John scored 45 out of 60.
What was his score expressed as a percentage? **a** 65% **b** 75% **c** 80% **d** 15%
- 2 The hour hand of a clock is pointing $\frac{7}{12}$ of the way between 3 and 4.
The minute hand should be pointing towards the **a** 7 **b** 5 **c** 6 **d** 10
- 3 If $\frac{6}{7}$ of a number is 144, what is the number? **a** 160 **b** 150 **c** 168 **d** 178
- 4 Which of these represents the greater value?
a $\frac{1}{2}$ of 50% **b** $6 \cdot 25\% \times 4$ **c** 0.25 of 100% **d** they all represent an equal value
- 5 Which of these is equivalent to $\frac{5}{6}$? **a** $\frac{25 \times 5}{25 \times 6}$ **b** $\frac{10-5}{11-6}$ **c** $\frac{3}{3} + \frac{2}{3}$ **d** $\frac{5 \times 0}{6 \times 0}$
- 6 A jar full of salad dressing weighed 250 grams.
Half full of salad dressing, it weighed 170g.
How much will the jar weigh when it is empty? **a** 80 g **b** 90 g **c** 100 g **d** 170 g
- 7 What is the nearest squared number to 100, without exceeding it?
a 100 **b** 81 **c** 64 **d** 99
- 8 In an aquarium, a large tank of water must be emptied.
It is necessary to empty it at the rate of 675 mL per minute.
After eight minutes, there was 16.6 litres left in the tank.
How much water was in the tank originally?
a 21.4 mL **b** 22.6 litres **c** 22 litres **d** 24 litres
- 9 A salesman receives a bonus of 15% on the selling price of each item that he sells.
One week, he sells 4 dishwashers at \$975 each and 3 DVD players priced at \$750 each.
What is the amount of the bonus he will receive at the end of the week?
a \$900.75 **b** \$410 **c** \$1230 **d** \$922.50
- 10 A student scores an average of 60% in four English tests.
To increase his average to 65%, how much must he score in the next English test?
a 65% **b** 85% **c** 75% **d** 90%



- 11 Four squares are joined together to form a larger square.
The area of each of the smaller squares is 4 square cm.

What is the perimeter of the larger square? a 16 cm b 8 cm c 12 cm d 32 cm

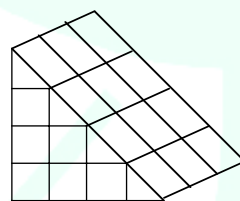
- 12 On a scale drawing, 10 cm represents 1000 m.

This is a scale of a 1:100000 b 1:10000 c 1:1000 d 1:100

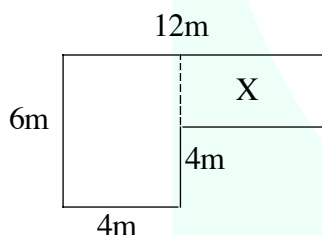
- 13 This solid shape is made using 1 cm cubes.

What is the volume?

- a 7 cm^3 b 8 cm^3
c 24 cm^3 d 36 cm^3



- 14 What is the area of the section of this shape marked X



- a 24 m^2
b 4 m^2
c 8 m^2
d 16 m^2

- 15 Qadir is walking in a south-easterly direction.

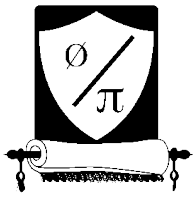
Suddenly, he stops, turns anti-clockwise through an angle of 90° and starts walking again.

In which direction is he now walking? a north-west b west
c north-east d south-west

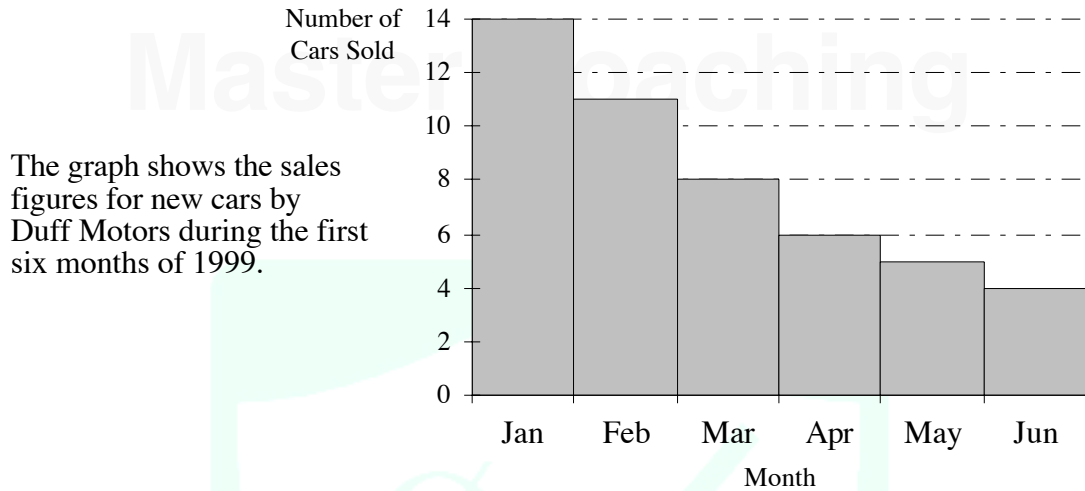
- 16 An overnight delivery driver leaves Sydney at 19:00 heading for Melbourne.

During the night she has two breaks, one for half an hour and another for forty-five minutes. She travels on the road for 11 hours.

At what time does she arrive in Melbourne? a 7:15 am b 6:15 am
c 6:45 am d 10 am

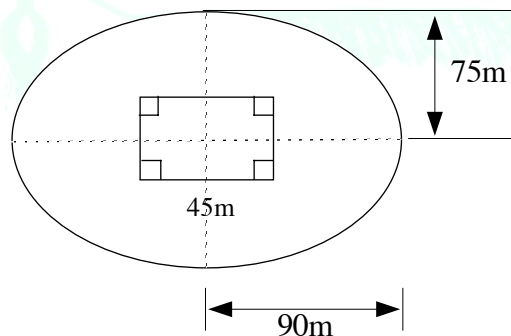


The next three questions are about this graph :

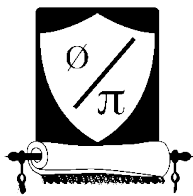


- 17 What was the average monthly sales for this period? **a** 6 **b** 8 **c** 4.8 **d** 9.5
- 18 Which month showed the greatest decrease in sales from the previous month?
a February **b** March **c** April **d** both answers a and b
- 19 Which of the following statements is true about this graph?
a New car sales for Western Motors are stronger in summer than in autumn.
b People have more money to spend in January than in June.
c Western Motors spends the most money on advertising in January.
d all answers a, b and c.

- 20 All Australian Rules fields have a centre square.
In the diagram below, the whole playing field has an area of 21195m^2 .
What is the area of that part of the playing field which is outside the centre square?



- a** 21150m^2
b 19170m^2
c 16695m^2
d 2025m^2



21 What is the product of the next three prime numbers after 2?

- a 105 b 385 c 15 d 90

22 $3 + 3 - 3 \times 3 \div 3 =$ a 0 b 3 c 6 d 9

23 How many *improper* fractions can be created using the digits 3, 5, 7, 9?

- a 8 b 10 c 4 d 6

24 Which of these numbers is not a prime number? a 69 b 71 c 59 d 2

25 A wheel has a circumference of $6 \cdot 5$ m.

How many turns does it make in travelling $136 \cdot 5$ m?

- a 18 turns b 15 turns c 21 turns d 10 turns

26 A golf course ride-on lawn-mower uses $2\frac{2}{5}$ litres of fuel per hour.
There are 12 litres of fuel left in the mower.

How much longer can the green keeper use the mower before she has to put fuel in the tank?

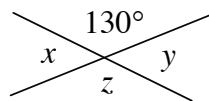
- a 6 hours b $5 \cdot 5$ hours c 5 hours d $4 \cdot 5$ hours

27 5 kg of apples costs \$11.25 and 3 kg of bananas costs \$7.05.

What is the total cost of 6 kg of apples and 5 kg of bananas?

- a \$25 b \$25.25 c \$26.25 d \$22.35

28 In this diagram,
what is the value of the angle marked x ?



- a 50° b 90° c 70° d 135°

29 A salesperson receives a commission of 10% of all sales.

One week, she sells 5 computers each priced at \$2000 and 5 printers each priced at \$250.

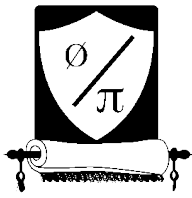
What is her total commission at the end of the week? a \$1125 b \$1200

- c \$1150 d \$1075

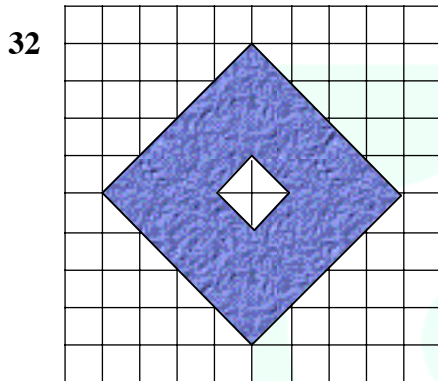
30 A student scores an average of 55% over six Mathematics tests.

What percentage score must the student get in the next test to achieve an average of 60%?

- a 60% b 55% c 80% d 90%



- 31 A rectangle measures 40 cm by 10 cm.
How long would be the side of a square with the same area as this rectangle?
- a 10 cm b 30 cm c 20 cm d 15 cm



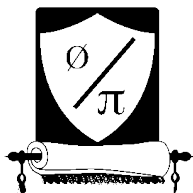
What is the area of the unshaded part of this diagram?
Each square represents 1cm by 1cm

- a 80 cm^2
b 70 cm^2
c 68 cm^2
d 77 cm^2

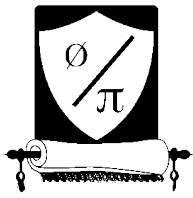
- 33 What number am I?
I am a triangular number.
If one is added to me, I become a square number.
- a 21 b 48 c 8 d 15

- 34 Jarod is travelling from Wollongong to Brisbane by car, setting off at 9 am.
During the day he drives for a total of 11 hrs, plus he has 2 meal breaks each of 35mins.
At what time does he arrive in Brisbane?
- a 21:10 b 20:35 c 22:10 d 9:00 pm

- 35 The digits of the number 5002 are reversed to form a new number.
The smaller four-digit number is then subtracted from the larger.
What is the answer? a 2993 b 3000 c 2997 d none of these answers



- | | | | | | | | | | |
|-------|-----|-----|-----|-----|-------|-----|-----|-----|-----|
| 1 | a | (b) | c | d | 21 | (a) | b | c | d |
| 2 | (a) | b | c | d | 22 | a | (b) | c | d |
| 3 | a | b | (c) | d | 23 | a | b | c | (d) |
| 4 | a | b | c | (d) | 24 | (a) | b | c | d |
| 5 | (a) | b | c | d | 25 | a | b | (c) | d |
| ----- | | | | | ----- | | | | |
| 6 | a | (b) | c | d | 26 | a | b | (c) | d |
| 7 | (a) | b | c | d | 27 | a | (b) | c | d |
| 8 | a | b | (c) | d | 28 | (a) | b | c | d |
| 9 | a | b | c | (d) | 29 | (a) | b | c | d |
| 10 | a | (b) | c | d | 30 | a | b | c | (d) |
| ----- | | | | | ----- | | | | |
| 11 | (a) | b | c | d | 31 | a | b | (c) | d |
| 12 | a | (b) | c | d | 32 | a | (b) | c | d |
| 13 | a | b | (c) | d | 33 | a | b | c | (d) |
| 14 | a | b | c | (d) | 34 | (a) | b | c | d |
| 15 | a | b | (c) | d | 35 | a | b | (c) | d |
| ----- | | | | | ----- | | | | |
| 16 | (a) | b | c | d | 36 | a | b | c | (d) |
| 17 | a | (b) | c | d | 37 | (a) | b | c | d |
| 18 | a | b | c | (d) | 38 | a | (b) | c | d |
| 19 | (a) | b | c | d | 39 | a | b | (c) | d |
| 20 | a | (b) | c | d | 40 | a | b | c | (d) |



Date : _____

Name : _____

Score : _____

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* Circle the letter of the best answer to each question ... for example 1 a b d

1 a b c d

21 a b c d

2 a b c d

22 a b c d

3 a b c d

23 a b c d

4 a b c d

24 a b c d

5 a b c d

25 a b c d

6 a b c d

26 a b c d

7 a b c d

27 a b c d

8 a b c d

28 a b c d

9 a b c d

29 a b c d

10 a b c d

30 a b c d

11 a b c d

31 a b c d

12 a b c d

32 a b c d

13 a b c d

33 a b c d

14 a b c d

34 a b c d

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16 a b c d

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40 a b c d