

MYEXAMPAPERS

PRACTICE MATHS SET 1 C

MATHEMATICS

40 minutes

36 questions

Name _____

Date _____

Choose one answer for each question.

Work quickly and carefully.

If you are stuck, move on and come back at the end.

1.

If the first five prime numbers are multiplied together, what is the units (last) digit of the resulting product?

0

2

5

7

9

2.

What must be subtracted from 12.3 to make 7.5?

5.8

4.8

5.2

4.5

3.8

3.

Which of the following fractions is exactly equivalent to 0.35?

$\frac{3}{5}$

$\frac{7}{20}$

$\frac{1}{3}$

$\frac{35}{10}$

$\frac{7}{50}$

4.

What is the smallest odd number that can be made by rearranging all the digits in 47,218?

12,478

12,487

14,287

12,741

12,847

5.

Which number is the only common multiple of 4, 6, and 9?

18

24

36

54

48

6.

The perimeter of a regular hexagon is 18cm. What is the length of one side?

3cm

4.5cm

2cm

6cm

2.5cm

7.

If $X = 6$ and $Y = 4$, what is the value of $2X - 3Y$?

12

2

0

4

24

8.

Thomas buys a book that costs £4.25 and a pen that costs £1.15. He pays with a £10 note. How much change will he receive?

£5.40

£4.60

£4.50

£5.60

£3.60

9.

What number is a third of 90 larger than half of 30% of 400?

60

90

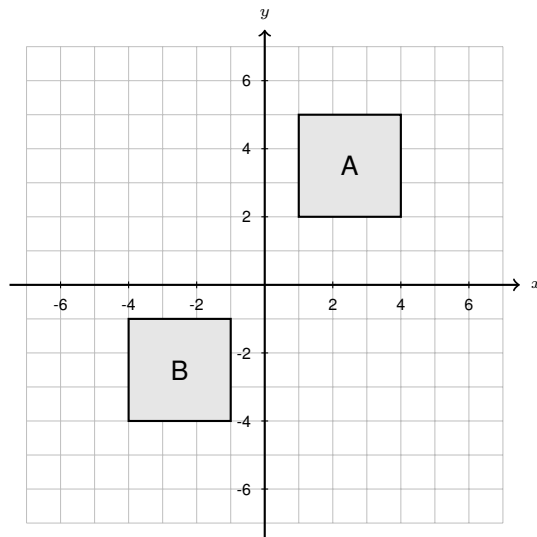
110

70

80

10.

Two rectangles, A and B, are shown on the coordinate plane below. Which option describes how rectangle A can be moved from its starting position to rectangle B?

Reflect y -axisReflect x -axis

Rotate & Shift

Reflect $y = -x$

Shift L5, D6

11.

A jar contains marbles that are red, blue, or yellow. One-third of the marbles are red. One-half of the remaining marbles are blue. If there are 12 yellow marbles, how many red marbles are in the jar?

6

8

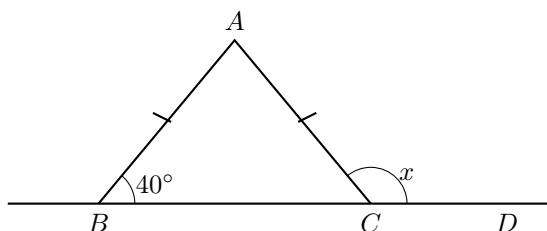
12

24

18

12.

The diagram shows an isosceles triangle ABC where side $AB = AC$. The straight horizontal base line extends out to point D . The diagram is not to scale. What is the size of the exterior angle x ?



150°

160°

140°

170°

165°

13.

If $2^4 \times 2^3 = 2^a$, what is the value of a ?

12

7

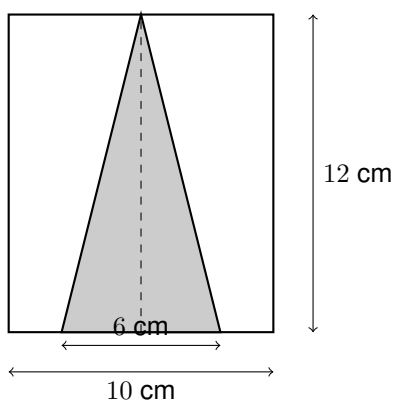
1

6

14

14.

A shaded triangle is placed inside a rectangle as shown. What is the area of the unshaded region of the rectangle?



96 cm^2

72 cm^2

24 cm^2

100 cm^2

84 cm^2

15.

Given that:
 $X + Y = Z$
 $X + Y + 2Z = 24$
What is the value of Z ?

4

6

8

12

3

16.

A coat is on sale with a 20% discount. The sale price is £160. What was the original price of the coat?

£200

£192

£180

£240

£175

17.

The sum of all the edge lengths of a solid cube is 36cm. What is the total surface area of the cube?

36 cm²

54 cm²

27 cm²

9 cm²

48 cm²

18.

Consider the sequence: 3, 4, 7, 12, 19, ...
What is the next number in the sequence?

26

28

31

30

27

19.

$(1.5 + \underline{\hspace{1cm}})^2 = 0.1 \times 0.8 \times 50$
What number must go in the gap to make the calculation correct?

1.5

0.5

1.33

2.5

0.8

20.

A lock combination uses a 4-digit code of different odd digits. The first digit is the largest, but the last digit is not the smallest. The number is exactly divisible by 9. What is the code?

9753

9531

7531

9153

9351

21.

Amy, Ben, and Chloe are collecting stamps. Ben has s stamps. Amy has 5 fewer stamps than Ben. Chloe has three times as many stamps as Amy. What is the total number of stamps they have altogether?

$5s - 20$

$4s - 15$

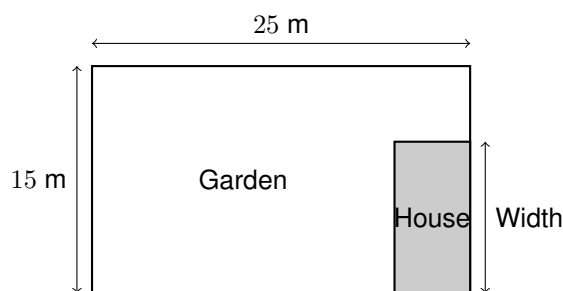
$5s - 15$

$3s - 5$

$5s - 5$

22.

The diagram shows the plans of a garden and a house. The diagram is not to scale. If the area of the garden is 300 m^2 , what is the width of the house?



5m

10m

15m

8m

6m

23.

A chef makes a drink mixture using 2 parts lemonade, 3 parts cranberry juice, and 4 parts soda water. If the chef uses 6 litres of cranberry juice, how much total drink mixture do they make?

12 litres

18 litres

15 litres

24 litres

20 litres

24.

$4x + 5 = x + 17$
What is the value of x ?

3

4

5

6

2

25.

A student can arrange 8 individual unit cubes into 2 unique cuboid shapes ($1 \times 1 \times 8$ and $1 \times 2 \times 4$). How many unique cuboid shapes can be made using 24 individual unit cubes?

3

4

5

6

8

26.

A toy box contains a mix of 3-wheeled tricycles and 4-wheeled toy cars. There are 12 toys in total. If there are 43 active wheels altogether, how many toy cars are in the box?

5

7

6

8

4

27.

In a survey, half the participants say they only drink coffee and one-quarter say they only drink tea. One-eighth say they drink both tea and coffee, while the remaining eighth say they drink neither. If 4 participants drink neither, how many total participants took part?

32

24

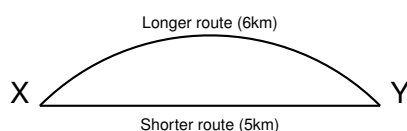
16

48

64

28.

Person A and Person B both start at Point X at the same time. They finish at Y. Person A takes the shorter route (length 5km) and runs at a speed of 10km per hour. Person B takes the longer route (6km) and reaches Y at the exact same time as Person A. What was Person B's speed?



12 km/h

11 km/h

9 km/h

8.5 km/h

10 km/h

29.

A test has 20 questions. A correct answer scores 4 points, an incorrect answer scores -2 points, and a skipped question scores 0 points. What is the maximum possible range of scores?

80

120

40

100

60

30.

George is one-third the age of his father. In 12 years' time, his father will be exactly twice as old as George. How old is George right now?

8

10

12

14

16

31.

Which of the following mathematical statements is definitively **false** for any negative integer n ?

n^2 is positive

n^3 is negative

$n + n$ is negative

$-n$ is negative

$n \div n$ is positive

32.

A traveler saves £ M each week for a flight. After 6 weeks, they have saved 40% of the total cost of the flight ticket. If $M = 60$, what is the total price of the ticket?

£800

£900

£1000

£750

£1200

33.

Consider the set of data numbers: $-4, 2, 5, 8, 9$. What is the absolute difference between the mean and the median of these numbers?

1

2

0

3

1.5

34.

At 17:50, a television programme is halfway through. At 18:10, the programme has 10% left to run. At what time did the programme start?

17:15

17:20

17:25

17:30

17:35

35.

80 candidates take a music assessment on Saturday. 10 more boys than girls take the assessment. 60% of all candidates pass. If 12 girls fail, how many boys pass the assessment?

23

25

27

31

20

36.

A money pouch contains only 10p and 50p coins. The total monetary value of the 10p coins is exactly four times the total value of the 50p coins. If there is at least one coin of each type, what is the absolute minimum number of coins that could be inside the pouch?

21

41

5

25

11

WORKED SOLUTIONS & ANSWER KEY

Q	Ans	Q	Ans	Q	Ans
1	0	13	7	25	6
2	4.8	14	84 cm ²	26	7
3	7/20	15	8	27	32
4	12,487	16	£200	28	12 km/h
5	36	17	54 cm ²	29	120
6	3cm	18	28	30	12
7	0	19	0.5	31	− <i>n</i> is negative
8	£4.60	20	9153	32	£900
9	90	21	5 <i>s</i> − 20	33	1
10	Shift L5, D6	22	10m	34	17:25
11	12	23	18 litres	35	25
12	140°	24	4	36	21