



Aldenham School

11+ Sample Paper

Subject: Maths

Time allowed: 45 mins

Instructions:

1. Write your answers in the spaces provided in this booklet
2. Show sufficient method to show how you obtained your answers
3. Calculators **MUST NOT** be used in any question.
4. Rulers may be used.

Work steadily through the paper doing as much as you can straight away, then go back to work at the more difficult questions.

Mark: _____ / 55

?: _____

1. Round the following numbers as stated

a) 146 to the nearest 10

.....
[1]

b) 6283 to the nearest 1000

.....
[1]

2. Work out the following calculations

a) 246×8

.....
[2]

b) $2592 \div 4$

.....
[2]

3. Fill in the gaps

a) $\sqrt{64} = \dots$

b) $\dots \times 30 = 240$

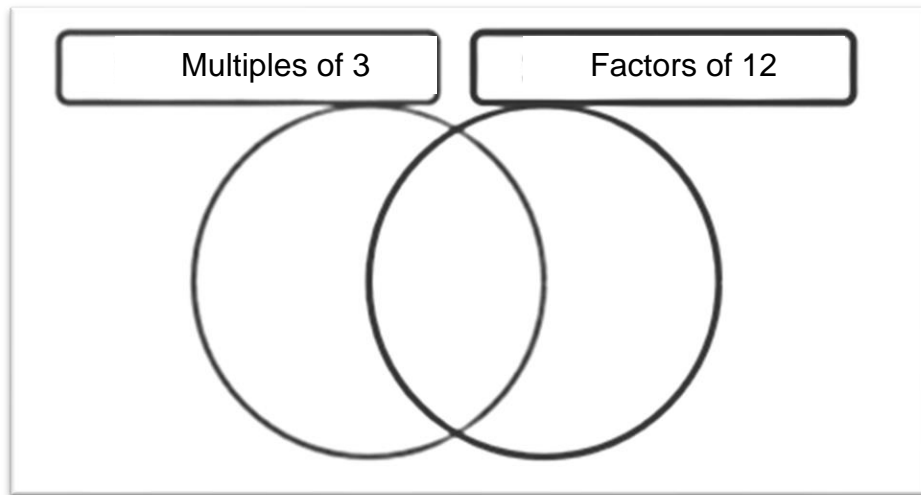
c) $\dots \times 0.4 = 20$

d) $28 - \dots = 30$

[4]

4. Place these seven numbers in the correct places in the Venn Diagram.

2 3 4 5 10 12 24



[3]

5. Jake buys 2 coffees, a milkshake and a cappuccino.

How much change does he receive from a £10?

Drinks Menu	
Tea.....	£1.40
Coffee.....	£1.60
Cappuccino.....	£1.90
Hot Chocolate....	£1.50
Fruit Juice.....	£1.20
Milkshake.....	£1.70
Smoothie.....	£1.30
Fizzy Pop.....	£1.00

£.....

[2]

6. A teacher is making toffee apples for his class' Hallowe'en party. He needs to make **24 toffee apples**.

He uses the following recipe which makes 8 toffee apples.

Ingredients
8 <u>red apples</u>
400g <u>caster sugar</u>
1 tsp lemon juice
4 tbsp <u>golden syrup</u>
red or black food colouring

a) How many tablespoons of golden syrup will he need?

.....
[1]

b) He already has 1 kg of caster sugar.
How many more grams will he need to buy?

.....grams
[1]

7. In 2018 a charity raffle raised £480. In 2019 they raised 30% more.

How much did the charity raise in 2019?

£
[2]

8. Arthur's twin sisters are 4 years older than him. Altogether their ages add up to 77.

How old is Arthur?

.....
[1]

9. Which calculation gives the largest result? Circle your answer.

$3 + 0 + 2 + 8$

$3 \times 0 + 2 + 8$

$3 + 0 \times 2 + 8$

$3 + 0 + 2 \times 8$

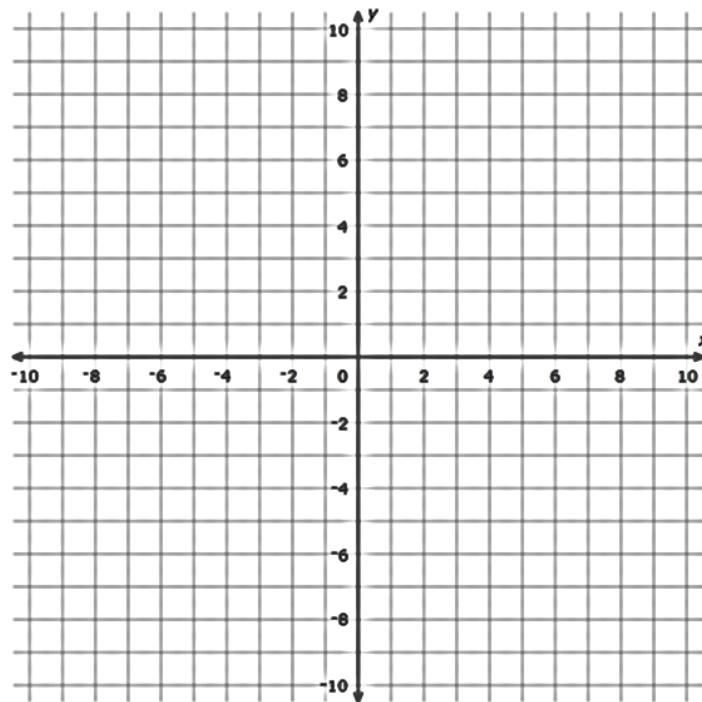
$3 \times 0 + 2 \times 8$

[1]

10. Three vertices of a rhombus are $(-4, 2)$, $(-1, 6)$ and $(4, 6)$.

10a. Plot these points on the axes below.

[2]



10b. Write down the co-ordinate of the missing vertex of the rhombus.

..... [1]

11. Circle the number below which is not a factor of 60?

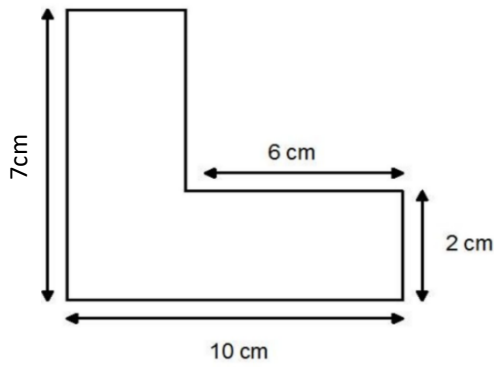
15

120

60

[1]

12. Find the area of this shape.



..... cm²
[2]

13. Circle the smallest number in each list.

13a) 0.102 0.12 0.112 0.201

13b) 0.8 $\frac{3}{4}$ 73% $\frac{18}{25}$

[2]

14. Work out $\frac{2}{3} - \frac{3}{10}$

.....
[2]

15. What is 23% of 1200.

.....
[2]

16. Put these fractions in ascending order of size, show workings.

$$\frac{3}{5} \text{ of } 30$$

$$\frac{7}{10} \text{ of } 20$$

$$\frac{2}{3} \text{ of } 24$$

.....

[2]

17. Given that $a = 5$, $b = 10$ and $c = 2$ complete the following expressions with $<$, $>$ or $=$.

17a) $2a - c$ c^3

17b) $3a^2$ $8b$

[2]

18. Work out the angle marked x .

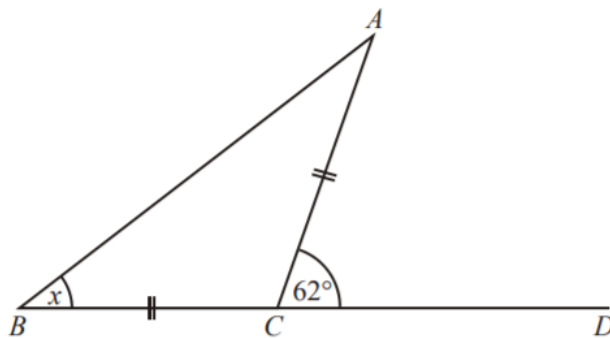


Diagram **NOT** accurately drawn

$x =$ $^\circ$
[2]

19a) Solve the following equation

$$\frac{x}{2} = 10$$

x =

[1]

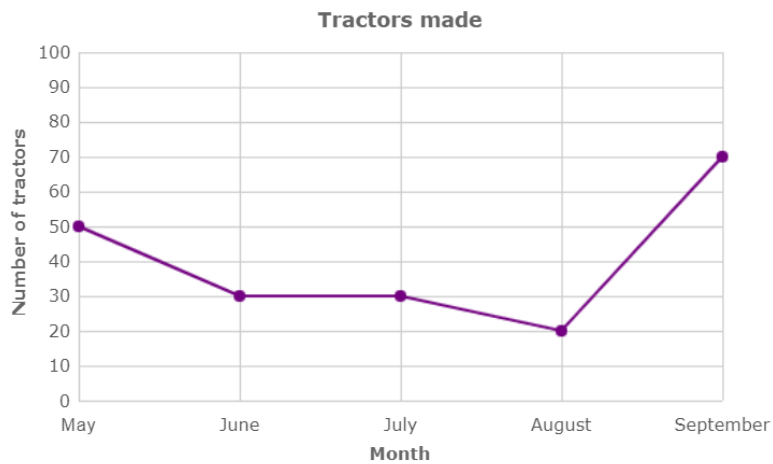
19b) Solve the following equation to find b.

$$2b - 25 = 41$$

b =

[2]

20. A farm equipment company kept a record of the number of tractors made each month.



20a) Find the mean number of tractors.

.....

[1]

20b) Including the October sales the new mean is 35. How many tractors were sold in October?

..... [2]

21. What fraction of these numbers are below the median?

2, 7, 10, 5, 4

.....

[2]

22. Given that **two teas and a coffee** cost £2.50 and **one tea and three coffees** cost £3.50.

How much does a single coffee cost?

..... P

[3]

23. A bridge is built across a river. One quarter of the bridge is over the left bank of the river and one third of the bridge is over the right bank.

The river is 84 m wide.

How long is the bridge?

..... m [3]

24. Write down all the numbers between 50 and 150 that have an odd number of factors?

..... [2]

END