ALDENHAM SCHOOL

11 + Entrance Paper

SAMPLE PAPER

Mathematics

Length of Examination – 45 minutes

Do not open until you are told to do so

Surname: …… School:……

First name: ……... Age: Years …… Months ……..

INSTRUCTIONS FOR CANDIDATES

- Write your answers in the spaces provided in this booklet
- Show sufficient method to show how you obtained your answers
- Calculators MUST NOT be used in any question.
- 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.

Total Number of Marks: 80

1. Write the number fourteen thousand and thirty six in figures.

……[1]

2. Fill in the gaps

a) ….. + 15 = 43

b) 6 x ….. = 54

c) ….. - 23 = 57

d) 64 ÷ ….. = 8

[4]

3. The Palladium can hold 2175 spectators.
If 305 of the seats are empty how many of the seats are taken?

……[2]

4. A bottle of fizzy pop holds 750ml.

How many 150ml glasses can be filled from this bottle?

……[2]

5. Katie's mum gives her £10.

She spends £1.90 on magazines, £2.45 on a birthday card and 75p on chocolate. How much money does she have left?

……[3]

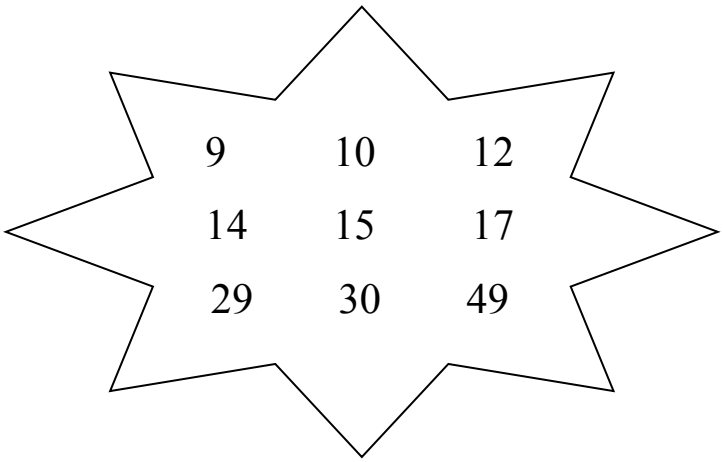
6. a) 14 x 100 = ……

b) 864 ÷ 100 = ……

c) ……. x 300 = 60

[3]

7. Look at the numbers in the star.



a) Which two numbers are multiples of 6? …….. ……

b) Which two numbers are prime? …….. ……

c) Which two numbers are factors of 70? …….. ……

d) Which two numbers are square numbers? …….. ……

[8]

8. George had a bag full of 24 apples.

- He gave **half** of them to his Granny to make an apple pie.
- He gave **two thirds of what was left** to his friends and then put the rest in the fruit bowl.

How many did he put in the fruit bowl?

……apples[3]

9. Emilie is thinking of a number.

If she

- adds 2 to it,
- then squares it
- and then subtracts 4 she gets 60.

Circle the number that Emilie was thinking of.

4 **6** **30**

[1]

10. Circle the smallest number in each group.

a)	0.309	0.039	0.93	0.093
b)	-7.5	-8	2	0
c)	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$
d)	0.4	30%	0.22	$\frac{1}{4}$

[4]

11.

World weather	Temp
Algiers	16°C
Barcelona	17°C
London	5°C
Moscow	-9°C
New York	7°C
Oslo	-5°C

a) The temperature recorded in Paris was 8°C lower than in London.

What was the temperature in Paris?

……..……..……°C [1]

b) What was the difference in temperature between Oslo and New York?

……°C [1]

12. Freya scored 16 out of 20 in her spelling test.

Hannah scored 85% in her spelling test.

Who did better? **You must explain your answer.**

……did better because…..

……

……

……

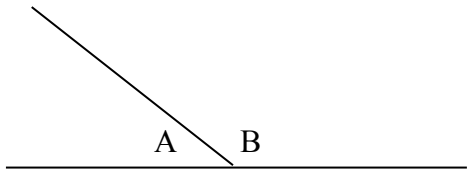
[2]

13. Fill in the missing numbers in the sequences below.

a)	-3	1	5	9	……	……
b)	32	26	……	14	……	2
c)	3	6	12	……	48	……
d)	1	4	…….	16	25	……

[8]

14.



a) Estimate the size of angle A.

……

b) **Use your answer to part (a)** to find the size of angle B.

……

[2]

15. The students on the Aldenham Football Tour to Madrid arrive at Heathrow Airport at 05:35.
Their flight leaves at 08:10.

How many minutes do they have to wait at the airport before their flight leaves?

……minutes[2]

16. The chart below shows the favourite sports of a group of students.

	Tennis	Football	Hockey	Swimming	**TOTAL**
Boys	5			6	25
Girls		5	12		
TOTAL	13		14	16	

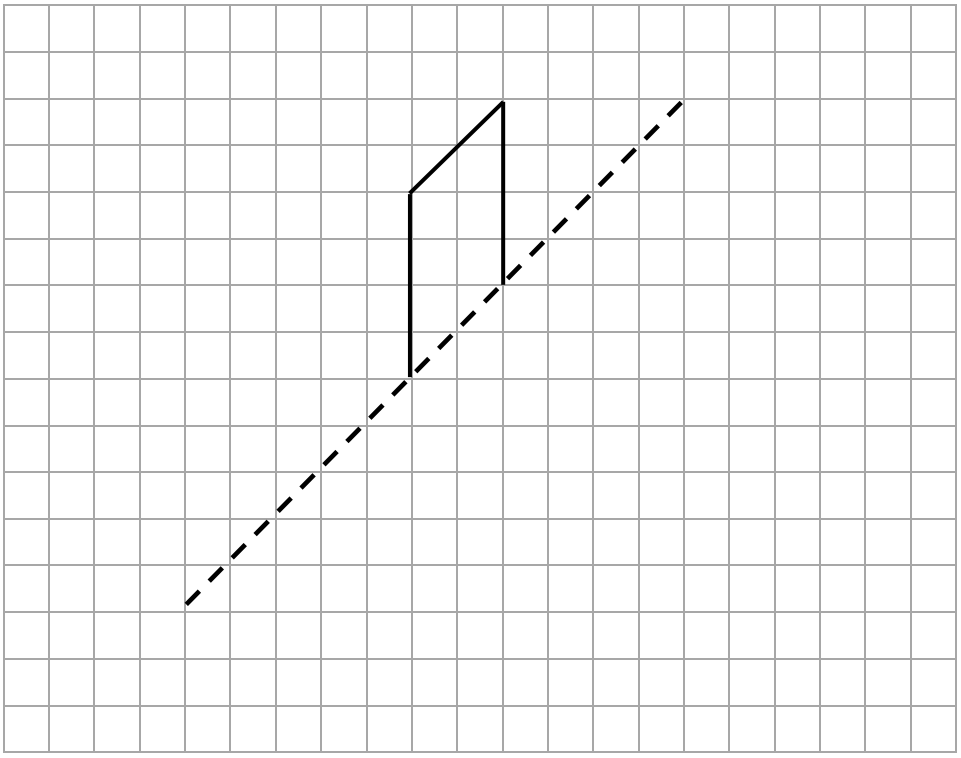
a) Complete the chart above

[3]

b) Find the probability that a student picked at random likes Hockey best.

……[1]

17. Draw the reflection of the shape below in the given line of symmetry.

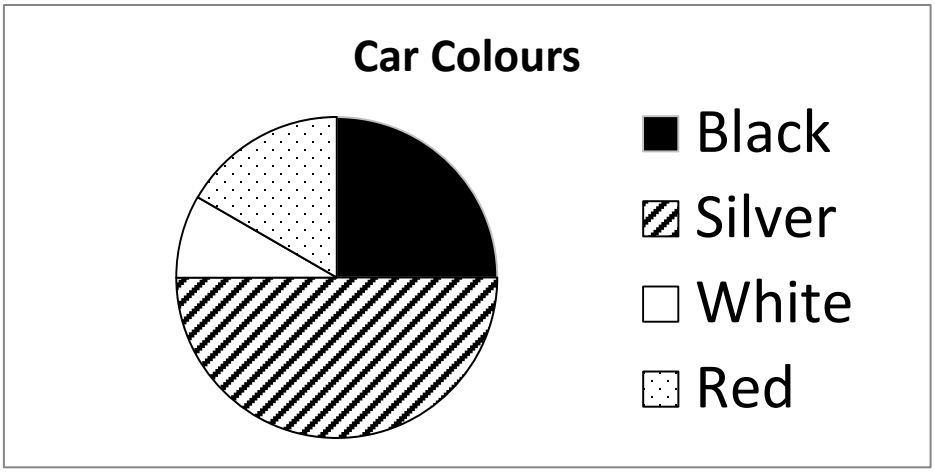


[2]

18. If the probability of it raining tomorrow is 0.08. What is the probability of it not raining tomorrow?

……[1]

19. A survey was carried out to see what colour cars people owned. Here are the results:



a) What fraction of people owned a black car?

……[1]

b) Given that 5 people owned a white car, how many people owned a silver car?

……[2]

20. How much will 46 lollipops cost if they cost £1.25 each?

……[3]

21. Jeff has 8 pizzas to share between himself and his friends.
If each person is to get $\frac{2}{3}$ of a pizza how many friends can he feed?

……[2]

22. Bob is very proud of his new car. It is 370cm long.

a) Convert 370cm in to metres ……m [1]

b) Convert 370cm into millimetres .....mm [1]

23. The following is a recipe for making 12 cupcakes.

200g caster sugar
200g butter
180g flour
2 eggs

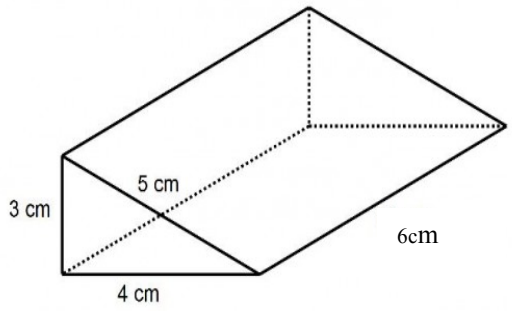
a) Isaac wants to make 36 cupcakes. How much flour should he use?

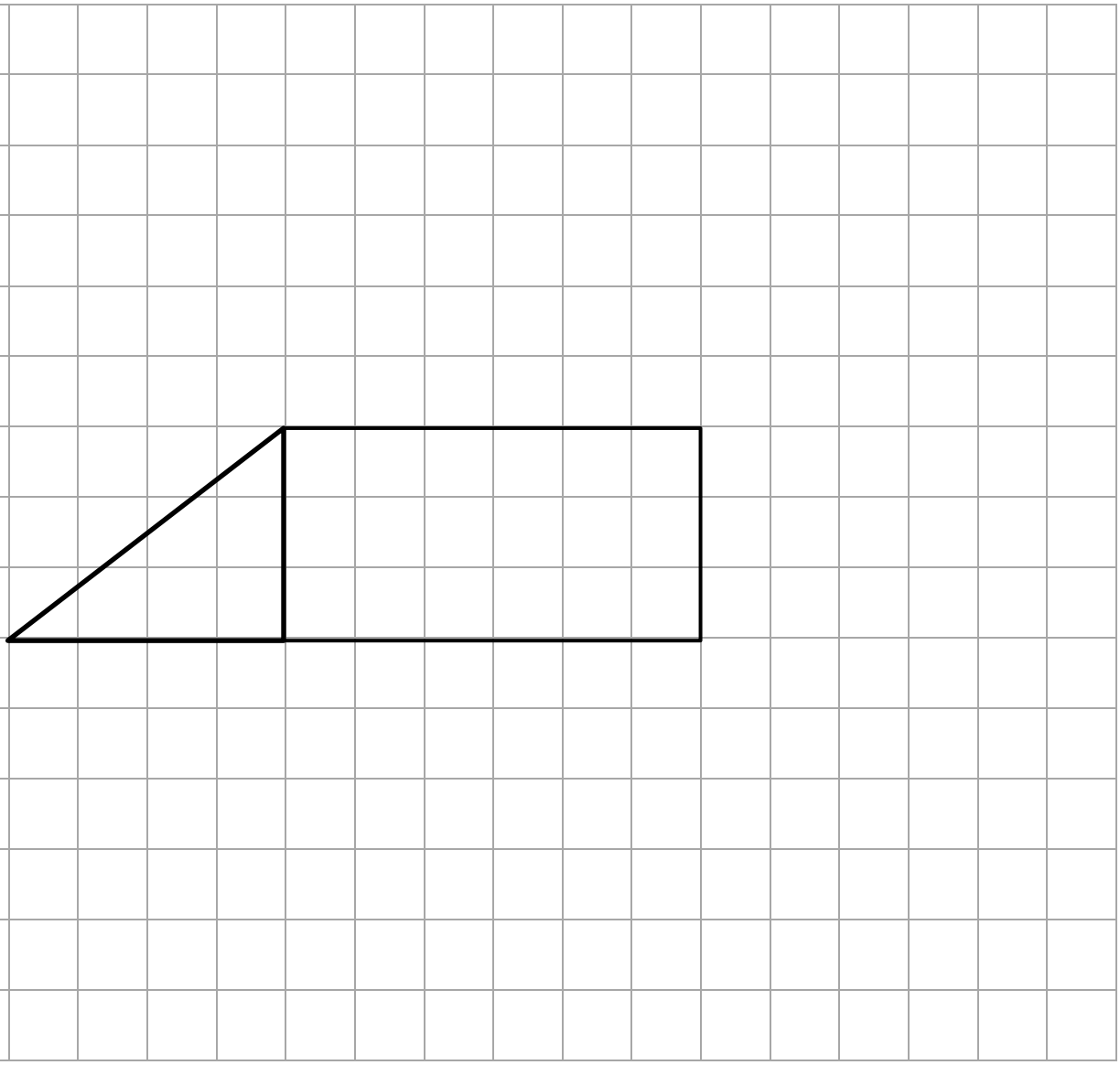
……g[1]

b) Lucy has 1 kg of caster sugar.
Given that she had plenty of all the other ingredients, how many cupcakes can she make?

……cupcakes[1]

24. Add some extra faces to this diagram to make it the net of a right angled triangular prism.





[4]

25. Which of these amounts is the cheaper? Circle your answer.

25% of £64 or 20% of £75

Show your workings.

[2]

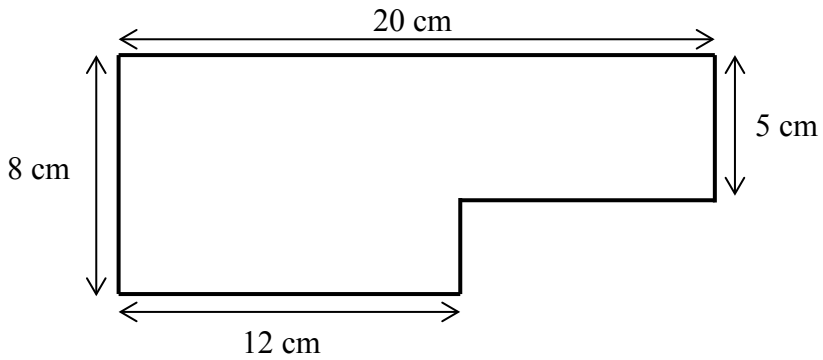
26. Fill in the gaps.

a) $\frac{\quad}{18} + \frac{1}{18} = \frac{1}{2}$

b) $\frac{\quad}{24} + \frac{1}{3} = \frac{1}{2}$

[2]

27. Find the perimeter of the shape below.



……..cm [3]

28. Have a look at the deals ticket vendors are offering:

- Each ticket cost £480.



If I needed 3 tickets, put the vendors in order (cheapest first).

……. ……. ……. …….[3]

END