Colfe's School

11+ Examination

Mathematics Sample Paper



Instructions

- In this exam you should attempt all questions
- Read each question carefully before answering it.
- Remember to show your method for each question.
- The number of marks for each question is given in brackets.
- You have 45 minutes to complete this paper.
- Calculators are not allowed.
- Good luck!

Total score=	
	100

1) Add together 95, 82 and 547.

.....

(2)

2) Work out 3801 – 122

.....

(2)

3) Multiply 59 by 7

.....

(2)

4) Divide 5616 by 8

.....

(2)

5) Work out

$$\frac{3}{8}+\frac{1}{6}$$

.....

(3)

6) Work out

$$2\frac{1}{4}-\frac{5}{9}$$

.....

(3)

7) Find 15% of 240

.....

(3)

8) Work out 3.45+11.01+2.3

.....

(3)

Turn over for more questions.

9) A field is planted with cabbages in rows. Each row contains 22 cabbage seeds and there are 39 rows. How many cabbage seeds are there in the field?

…….. (3)

10) A teacher shares a large packet of sweets evenly to her class of 24 pupils and then eats the left over sweets. There were 170 sweets in the packet, how many does the teacher eat?

…….. (3)

11) Asif wants to buy a computer game that costs £32.99 in the shop but decides to wait until there is a sale. In the sale Asif buys the computer game for £25.62. How much money did he save?

£…….. (3)

12) Anna decides to share her pizza with two of her friends. She gives one friend a fifth of the pizza and the other friend three tenths of the pizza. What fraction of the pizza is left for Anna?

.....

(3)

13) Jordan has a collection of 1345 marbles! He gives his friend 689 of the marbles. How many does Jordan have left?

.....

(3)

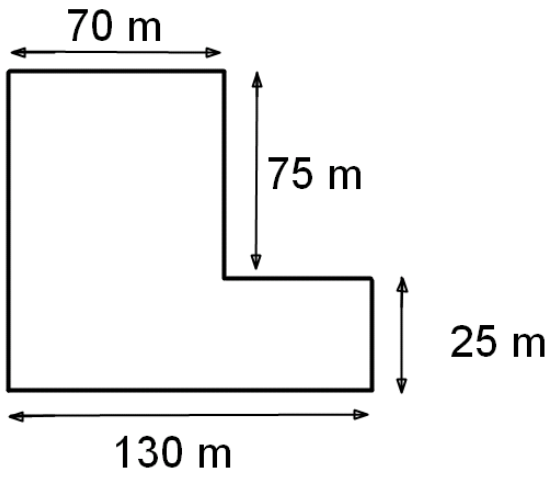
14) There are 10 millimetres in a centimetre and 100centimetres in a metre. How many millimetres are there in 25.1 metres?

.....mm

(3)

Turn over for more questions.

15) The diagram shows a field viewed from above. All dimensions are given in metres.



A mouse walks all the way around the edge of this field. How far does the mouse walk in metres?

.....m

(3)

16) Write down the next two numbers in each sequence

a) 7, 9, 11, 13, _____ , _____

b) 105, 96, 87, 78, _____ , _____

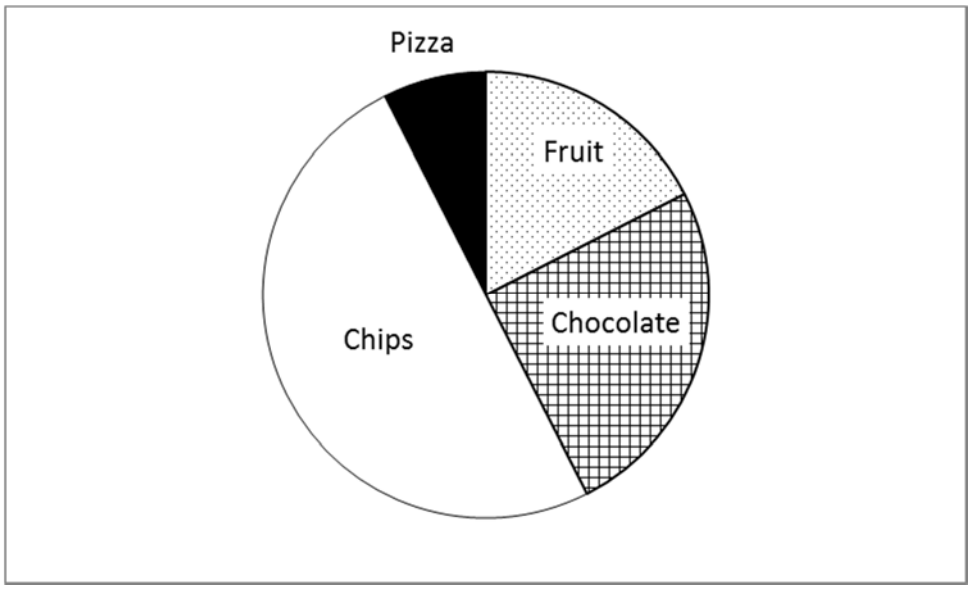
(2)

17) I think of a number. When I multiply this number by 15 and then subtract 7 I get 38. What number am I thinking of?

.....

(2)

18) I asked 48 year 7 students what their favourite food was.
The results are shown in this pie chart.



a) How many year 7s have chips as their favourite food?

.....

b) What fraction of year 7s have chocolate as their favourite food?

.....

c) Estimate the number of year 7s who have pizza as their favourite food.

.....

(3)

Turn over for lots more maths!

19) Write each list of numbers in order from smallest to largest

a) 0.77, 0.7, 7.7, 7.07

.....

b) 5, -8, -16, 9, 8

.....

(2)

20) Billy went shopping and bought 3 computer games that cost £25.50 each and 2 doughnuts that cost £1.30 each.
How much change did Billy get from £100?

£.....

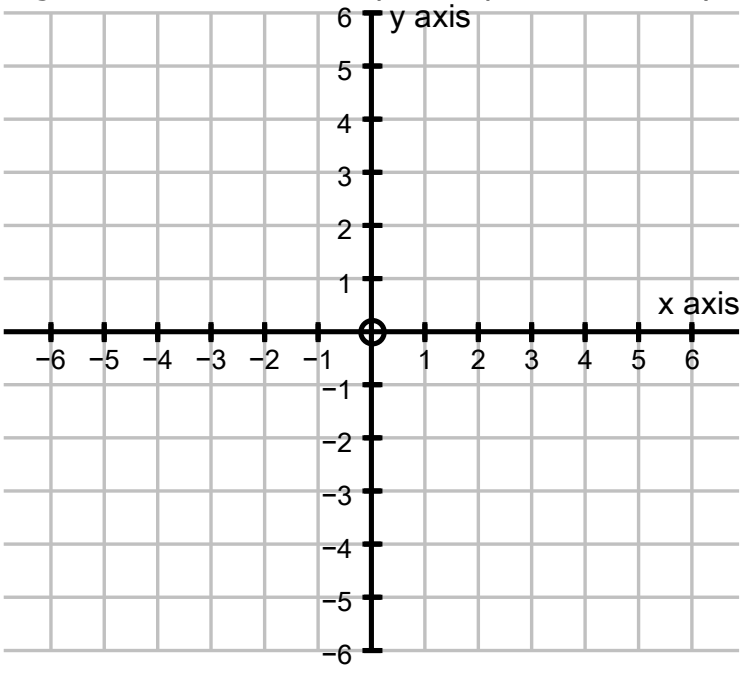
(4)

21) Alison, Bhavini and Catherine share a bag of sweets. Alison gets 5 more sweets than Bhavini and Catherine gets twice as many sweets as Alison.
Catherine gets 22 sweets. How many sweets are there in the bag?

.....

(3)

22) On the coordinate grid below each small square represents 1cm by 1cm.



a) Plot the points (4,1) , (4,5) , (-1, 1) and (-1, 5) and join them up to make a rectangle.

b) What is the area of the rectangle?

……..cm²

c) Reflect the rectangle in the x axis and draw the result on the coordinate grid.

(4)

23) Look at the sequence below. Some of the numbers are missing.

a) Fill in the numbers so that they fit the pattern. Describe the pattern in words.

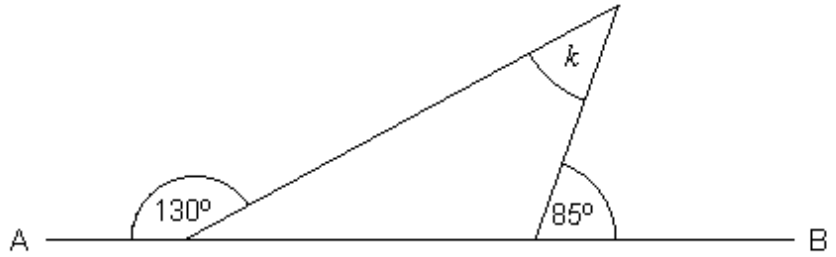
2, _____, _____, 16, 32, 64

Description: ……

(2)

Keep going! Turn over for more questions.

24) Look at the diagram.



Not drawn accurately

Find the size of angle k.

.....

(3)

25) Work out the missing values

11% of 3600 = ...

..... % of 52 = 13

15 % of ..... = 60

(4)

26) The cost in pounds, C, of going to the cinema can be worked out using the formula

$$C = 8a + 3k$$

In this formula a stands for the number of adults and k stands for the number of children.

a) What is the cost if three adults and one child go to the cinema?

.....

b) The total cost for the Bryant family is £25. How many adults and how many children are in the family?

.....adults

.....children

(5)

27) Work out the value of

a) $9 + 7 \times 8 - 3$

.....

b) $(11 + 13) \times -20$

.....

c) 2×13^2

.....

d) $-13 - 27$

.....

(4)

Turn over for even more fun maths!

28) Solve each equation

a) $x + 80 = 15$

$x =$ .....

b) $6y - 20 = 46$

$y =$ .....

c) $10g + 400 = 645 - 15g$

$g =$ .....

(6)

29) a) A square has a perimeter of 32cm. What is the area of the square?

.....cm^2

b) A rectangle has perimeter 32cm. The rectangle is three times as long as it is wide. What is the area of the rectangle?

.....cm^2

(3)

30) The floor or a room is 3 metres wide and 4 metres long. I am going to tile the floor with tiles that are 25 centimetres wide and 50 centimetres long. How many tiles do I need to buy?

.....

(3)

Turn over for the last two questions!

31) I flip a fair coin that has the number 3 on one side and the number 7 on the other side. At the same time a roll a fair four sided dice that has the numbers 1 to 4 on it. Then I add the two numbers. If I do this 50 times how many times would you expect me to get a total of 7?

.....

(3)

32) A new mobile phone app is sold for 79 pence per download and proves to be very popular so that 150 people are downloading the app every day. The person who created the app gets 44 pence every time it is downloaded and she gets paid at the end of each week. How many weeks will it take for her to have £2,000?

..... (3)

END OF EXAM

Well done!