

Name: _____

GCSE (1 – 9)

Fractions of an Amount

Instructions

- Use **black** ink or ball-point pen.
- Answer all Questions.
- Answer the Questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

Information

- The marks for each Question are shown in brackets
– *use this as a guide as to how much time to spend on each Question.*

Advice

- Read each Question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every Question.
- Check your answers if you have time at the end

1 Find $\frac{1}{6}$ of 420

$$\frac{420}{6} = 70$$

.....
70

(Total for question 1 is 1 mark)

2 Find $\frac{1}{4}$ of 44

$$\frac{44}{4} = 11$$

.....
11

(Total for question 2 is 1 mark)

3 Find $\frac{1}{8}$ of 72

$$\frac{72}{8} = 9$$

.....
9

(Total for question 3 is 1 mark)

4 Find $\frac{1}{5}$ of 60

$$\frac{60}{5} = 12$$

.....
12

(Total for question 4 is 1 mark)

5 Find $\frac{1}{3}$ of 48

$$\frac{48}{3} = 16$$

.....
(Total for question 5 is 1 mark)

6 Work out $\frac{3}{4}$ of 180

$$\frac{1}{4} \text{ of } 180 = \frac{180}{4} = 45$$

$$\frac{3}{4} \text{ of } 180 = 45 \times 3 = 135$$

..... 135

(Total for question 6 is 2 marks)

7 Work out $\frac{2}{5}$ of 140

$$\frac{1}{5} \text{ of } 140 = \frac{140}{5} = 28$$

$$\frac{2}{5} \text{ of } 140 = 28 \times 2 = 56$$

..... 56

(Total for question 7 is 2 marks)

8 Find $\frac{2}{3}$ of 240

$$\frac{1}{3} \text{ of } 240 = \frac{240}{3} = 80$$

$$\frac{2}{3} \text{ of } 240 = 80 \times 2 = 160$$

..... 160

(Total for question 8 is 2 marks)

9 Find $\frac{5}{6}$ of 72

$$\frac{1}{6} \text{ of } 72 = \frac{72}{6} = 12$$

$$\frac{5}{6} \text{ of } 72 = 12 \times 5 = 60$$

..... 60

(Total for question 9 is 2 marks)

10 Work out $\frac{3}{7}$ of 56

$$\frac{1}{7} \text{ of } 56 = \frac{56}{7} = 8$$

$$\frac{3}{7} \text{ of } 56 = 8 \times 3 = 24$$

..... 24

(Total for question 10 is 2 marks)

11 Holly is thinking of a number.

$\frac{3}{4}$ of Holly's number is 39.

Work out the number Holly is thinking of.

$$\frac{3}{4} \text{ of } n = 39$$

$$\frac{1}{4} \text{ of } n = \frac{39}{3} = 13$$

$$n = 13 \times 4 = 52$$

..... 52

(Total for question 11 is 2 marks)

12 $\frac{2}{5}$ of number n is 18.

Find the value of n .

$$\frac{1}{5} \text{ of } n = \frac{18}{2} = 9$$

$$n = 9 \times 5 = 45$$

..... 45

(Total for question 12 is 2 marks)

13 $\frac{5}{6}$ of number is 30.

Find the number.

$$\frac{1}{6} \text{ of } n = \frac{30}{5} = 6$$

$$n = 6 \times 6 = 36$$

..... 36

(Total for question 13 is 2 marks)

- 14 Work out the difference between 25 and $\frac{2}{9}$ of 81

$$81 \div 9 = 9$$

$$\frac{1}{9} \text{ of } 81 = 9$$

$$\frac{2}{9} \text{ of } 81 = 18$$

$$25 - 18 = 7$$

..... 7

(Total for question 14 is 3 marks)

- 15 Work out the difference between $\frac{3}{8}$ of 32 and $\frac{2}{5}$ of 40

$$\frac{3}{8} \text{ of } 32$$

$$32 \div 8 = 4$$

$$3 \times 4 = 12$$

$$\frac{2}{5} \text{ of } 40$$

$$\frac{40}{5} = 8$$

$$2 \times 8 = 16$$

$$16 - 12 = 4$$

..... 4

(Total for question 15 is 3 marks)

- 16 Work out the difference between 20% of 90 and $\frac{3}{7}$ of 49

$$20\% \text{ of } 90$$

$$10\% = 9 \quad [90 \div 10]$$

$$20\% = 18 \quad [9 \times 2]$$

$$\frac{49}{7} = 7$$

$$\frac{1}{7} \text{ of } 49 = 7$$

$$7 \times 3 = 21$$

$$\frac{3}{7} \text{ of } 49 = 21$$

$$21 - 18 = 3$$

..... 3

(Total for question 16 is 3 marks)

17 There are 924 people in a theatre.

383 of the people are men.

356 of the people are women.

$\frac{2}{5}$ of the children are boys.

Work out how many girls are in the theatre.

$$\begin{array}{r} 383 \\ + 356 \\ \hline 739 \end{array}$$

Adults

$$\begin{array}{r} \cancel{9}24 \\ - 739 \\ \hline 185 \end{array}$$

Children

$$5 \overline{) 185} \begin{array}{l} 37 \end{array}$$

$$\frac{1}{5} \text{ of } 185 = 37$$

$$37 \times 3 = 111$$

$$\frac{3}{5} \text{ of } 185 = 111$$

..... 111

(Total for question 17 is 3 marks)

18 The normal price of a computer game is £40

The price is reduced by $\frac{1}{5}$ in a sale.

Work out the price of the computer game in the sale.

$$\frac{40}{5} = 8$$

$$40 - 8 = 32$$

£..... 32

(Total for question 18 is 2 marks)

19 There are 1100 students at a school.

540 students are girls, the rest are boys.

$\frac{1}{10}$ of the girls are left handed.

$\frac{1}{8}$ of the boys are left handed.

Work out the number of left handed students in the school.

$$1100 - 540 = 560 \quad (560 \text{ Boys})$$

$$\frac{1}{10} \text{ of } 540 = \frac{540}{10} = 54$$

$$\frac{1}{8} \text{ of } 560 = \frac{560}{8} = \frac{280}{4} = \frac{140}{2} = 70$$

$$54 + 70 = 124$$

.....124

(Total for question 19 is 3 marks)

20 Harry has 50 sweets.

He gives $\frac{2}{5}$ of the sweets to Sandra.

He gives $\frac{3}{10}$ of the sweets to Jamie.

Harry keeps the rest of the sweets for himself.

Work out how many sweets Harry keeps.

$$* \quad \frac{1}{5} \text{ of } 50 = \frac{50}{5} = 10$$

$$\frac{2}{5} \text{ of } 50 = 10 \times 2 = \underline{\underline{20}}$$

$$\frac{1}{10} \text{ of } 50 = \frac{50}{10} = 5$$

$$\frac{3}{10} \text{ of } 50 = 3 \times 5 = \underline{\underline{15}}$$

He gives away

$$20 + 15 = 35$$

$$50 - 35 = \underline{\underline{15}}$$

.....15

(Total for question 20 is 3 marks)

21 The normal price of a train ticket from Ashford to London is £34.20

Ross gets $\frac{1}{3}$ off the price of his train ticket

Work out how much Ross pays for his ticket.

$$\frac{1}{3} \text{ of } 34.20 = \frac{34.20}{3}$$
$$= 11.40$$

$$\begin{array}{r} 1140 \\ 3 \overline{) 3420} \end{array}$$

$$\begin{array}{r} 3420 \\ - 1140 \\ \hline 2280 \end{array}$$

£ 22.80.....

(Total for question 21 is 2 marks)

22 Stan has an income of £2000 a month.

He spends $\frac{2}{5}$ of his income on rent.

$$\frac{1}{5} \text{ of } 2000 = \frac{2000}{5} = 400$$

He spends $\frac{3}{20}$ of his income on bills.

$$\frac{2}{5} \text{ of } 2000 = 2 \times 400 = \underline{\underline{800}}$$

He spends $\frac{1}{10}$ of his income on food.

$$\frac{1}{20} \text{ of } 2000 = \frac{2000}{20} = 100$$

Stan saves the rest of his income.

$$\frac{3}{20} \text{ of } 2000 = 100 \times 3 = \underline{\underline{300}}$$

Work out how much Stan saves each month.

$$\frac{1}{10} \text{ of } 2000 = \frac{2000}{10} = \underline{\underline{200}}$$

$$\text{Stan spends: } 800 + 200 + 300 = 1300$$

$$\text{Stan saves: } 2000 - 1300 = 700$$

£ 700.....

(Total for question 22 is 3 marks)