

Question Sheet: Fraction/% of an Amount | M2

Name:



Questions are ordered by increasing difficulty. If you are confused, please rewatch the lesson recording before contacting your tutor. Please submit the assignment prior to the deadline to allow time for marking and corrections. Please attempt all questions.

1.

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

$$180 \div 4 = \frac{1}{4} = 45$$

$$\frac{3}{4} = 3 \times 45 = 135.$$

2.

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

$$56 \div 7 = \frac{1}{7} = 8$$

$$\frac{3}{7} = 3 \times 8 = 24.$$

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

$$32 \div 8 = \frac{1}{8} = 4$$

$$\frac{3}{8} = 3 \times 4 = 12$$

$$40 \div 5 = 8 \frac{1}{5} = 8$$

$$\frac{2}{5} = 2 \times 8 = 16$$

$$16 - 12 = 4$$

4. 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.

$$34.20 \div 3 = 11.40$$

$$\begin{array}{r} 33 \\ 34.20 \\ -11.40 \\ \hline 22.80 \end{array}$$

£22.80

5.

Stan has an income of £2000 a month. ✗

He spends $\frac{2}{5}$ of his income on rent. = £800

He spends $\frac{3}{20}$ of his income on bills. = £300.

He spends $\frac{1}{10}$ of his income on food. = £200

Stan saves the rest of his income.

Work out how much Stan saves each month.

£600

$$\begin{array}{r} 19 \\ 2000 \\ -1300 \\ \hline 0600 \end{array}$$

6.

Find 21% of £160

$$160 \div 100 = 1.6 \times 21 = £33.60$$

7. Which is greater

30% of 105 or 32% of 98

You must show your working.

$$\begin{aligned} & \text{30\% of 105} \\ & = \frac{30}{100} \times 105 = 105 \div 3 \\ & = 30\% \text{ of } 105 \\ & = 10\% = \frac{105}{10} \\ & = 10.5 \\ & 30\% = 10.5 \times 3 \\ & \boxed{= 31.50} \end{aligned}$$

$$\begin{aligned} & 32\% \text{ of } 98 \\ & = 4\% \text{ of } 98 = 0.98 \\ & 32\% = 0.98 \times 32 \\ & = 31.36 \end{aligned}$$

30% of 105 is greater.

8.

Richard gets a bonus of 30% of £130

Connor gets a bonus of £40

Work out the difference between the bonus Richard gets and the bonus Connor gets

$$10\% \text{ of } 130 = £13$$

$$30\% \text{ of } 130 = £39$$

$$40 - 39 = \underline{\underline{1}}$$

9.

David is paid £34000 per year.

He is going to get a 3% increase in the amount of money he is paid.

Work out how much money David will be paid per year after the increase

$$1\% \text{ of } 34000 = \underline{\underline{\text{£340}}}$$

$$3\% \text{ of } 34000 = 340 \times 3 = \underline{\underline{\text{£1020}}}$$

$$\begin{array}{r} 34000 \\ + 1020 \\ \hline \underline{\underline{35020}} \end{array} \quad \underline{\underline{\text{£35020}}}$$

10.

There are adults and children in a cinema.

There are 48 adults.

25% of the people at the cinema are children.



Work out the total number of people at the cinema.

$$75\% = 48$$

$$25\% = 48 \div 3 = 16$$

$$48 + 16 = \underline{\underline{64}}$$