Question 1: Work out each of the following

(a) \( \frac{1}{2} \) of 10      (b) \( \frac{1}{3} \) of 18      (c) \( \frac{1}{5} \) of 20      (d) \( \frac{1}{4} \) of 24

(e) \( \frac{1}{9} \) of 27      (f) \( \frac{1}{10} \) of 160     (g) \( \frac{1}{8} \) of 80      (h) \( \frac{1}{7} \) of 49

(i) \( \frac{1}{2} \) of 9       (j) \( \frac{1}{5} \) of 65      (k) \( \frac{1}{12} \) of 72     (l) \( \frac{1}{11} \) of 132

Question 2: Work out each of the following

(a) \( \frac{2}{3} \) of 15      (b) \( \frac{7}{10} \) of 20      (c) \( \frac{2}{5} \) of 30      (d) \( \frac{3}{4} \) of 32

(e) \( \frac{3}{5} \) of 45      (f) \( \frac{2}{7} \) of 28      (g) \( \frac{3}{8} \) of 88      (h) \( \frac{3}{10} \) of 120

(i) \( \frac{5}{9} \) of 63      (j) \( \frac{13}{20} \) of 60     (k) \( \frac{2}{7} \) of 91      (l) \( \frac{4}{15} \) of 120

Question 3: Work out each of the following. Include suitable units.

(a) \( \frac{1}{3} \) of £21      (b) \( \frac{3}{4} \) of 100kg      (c) \( \frac{2}{3} \) of 27cm      (d) \( \frac{7}{8} \) of 32 seconds

(e) \( \frac{2}{5} \) of 90 miles  (f) \( \frac{5}{6} \) of £150      (g) \( \frac{5}{12} \) of 240ml     (h) \( \frac{9}{10} \) of 310 students

(i) \( \frac{1}{8} \) of a day     (j) \( \frac{4}{5} \) of 1km       (k) \( \frac{3}{7} \) of 2 weeks (l) \( \frac{1}{500} \) of 1m
Question 4: Work out each of the following.

(a) \(\frac{3}{10}\) of 32 miles  
(b) \(\frac{2}{5}\) of 9 kg  
(c) \(\frac{1}{3}\) of 8 litres  
(d) \(\frac{3}{5}\) of £7

(e) \(\frac{1}{8}\) of 50 cm  
(f) \(\frac{1}{5}\) of 4931 km  
(g) \(\frac{3}{4}\) of £57  
(h) \(\frac{2}{9}\) of 211 km

Question 5: Work out the largest of each of the following pairs.

(a) \(\frac{1}{3}\) of 21  \(\text{or}\)  \(\frac{1}{2}\) of 12  
(b) \(\frac{1}{6}\) of 30  \(\text{or}\)  \(\frac{2}{3}\) of 9  
(c) \(\frac{2}{5}\) of 65  \(\text{or}\)  \(\frac{3}{4}\) of 32

(d) \(\frac{1}{5}\) of 2 m  \(\text{or}\)  \(\frac{3}{4}\) of 60 cm  
(e) \(\frac{3}{8}\) of a day  \(\text{or}\)  \(\frac{1}{10}\) of 85 hours

(f) \(\frac{7}{15}\) of 480  \(\text{or}\)  \(\frac{2}{3}\) of 453  
(g) \(\frac{3}{10}\) of 395  \(\text{or}\)  \(\frac{2}{7}\) of 420

Apply

Question 1: James has 20 sweets. 
\(\frac{3}{4}\) of the sweets are red. 
How many sweets are red?

Question 2: In a class, there are 24 students. 
\(\frac{1}{8}\) of the students wear glasses. 
How many students wear glasses?

Question 3: There are 40 apples in a crate. 
\(\frac{3}{5}\) of the apples are bad. 
How many good apples are there?
Question 4: On Wednesday, James slept for $\frac{3}{8}$ of the day

(a) How many hours did James spend sleeping?

(b) For how many hours was James awake?

(c) What fraction of the day was James awake?

Question 5: Declan won £6000 in a competition.

He invests $\frac{2}{5}$ of the money.

How much money did Declan invest?

Question 6: Katie has £1200.

She gives $\frac{1}{3}$ of the money to her sister.

Then Katie gives $\frac{1}{4}$ of the remaining money to her brother.

How much money does Katie have left?

Question 7: The attendance at a Sheffield United match is 15,291

$\frac{2}{9}$ of the crowd are children.

How many adults attended the match?

Question 8: There are 194 students in a primary school.

Mr Wallace says that exactly $\frac{1}{4}$ of the students are left handed.

Explain why Mr Wallace must be wrong.

Question 9: Connor has saved £450.

He spends $\frac{1}{5}$ of the £450 on a new tyre for his car.

Connor spends $\frac{2}{3}$ of the £450 on a new guitar.

What fraction of the £450 does Connor have left?
Question 10: The size of a jar of coffee is increased by one-fifth. The new size is later reduced by one-fifth. Is the new jar smaller, the same size or larger than the original? Explain how you worked out your answer.

Question 11: A company earns £3,178,784 in 2016. \( \frac{4}{7} \) of the income is spent on salaries. How much money does the company spend on salaries in 2016?