1. a)

$$\begin{array}{r} 5420 \\ 4705 \\ 6562 \\ 6195 \\ \hline 22882 \\ \hline \end{array}$$
$$\begin{array}{r} {}^{1}\,{}^{1}\,{}^{1} \end{array}$$

The food has travelled 22,882 miles in total.

b)

$$\begin{array}{r} {}^{5}6\,{}^{1}5\,{}^{1}6\,{}^{1}2 \\ -\,4705 \\ \hline 1857 \\ \hline \end{array}$$

The difference between the longest and shortest food mile journey is 1,857 miles.

2. a) To make 28, I need to double everything:

500g margarine
100g caster sugar
200g muscovado sugar
300g flour
450g oats
400g cherries
100g raisins.

b) To make 7, I need to halve everything:

125g margarine
25g caster sugar
50g muscovado sugar
75g flour
112.5g oats
100g cherries
25g raisins.

3. $\begin{array}{r} 1066 \\ -\ 793 \\ \hline 273 \end{array}$ The Viking Age lasted for 273 years.

4. a) $10 \times 16 = 160\text{m}$. 10 boats would measure 160m.

b) $20 \times 16 = 320\text{m}$. 20 boats would measure 320m.

5. a) $\begin{array}{r} 101.25 \\ +\ 98.76 \\ \hline 200.01 \\ \hline \end{array}$ The total force is 200.01N.

b) $\begin{array}{r} 101.25 \\ -\ 98.76 \\ \hline 02.49 \end{array}$ The difference in their force is 2.49 N.

6. $\begin{array}{r} 2020 \\ -\ 1643 \\ \hline 0377 \end{array}$ Isaac Newton was born 377 years ago.

7. a) 50 50 vibrations in 1 second.

b) 15×50. $10 \times 50 = 500$ $5 \times 50 = 250$.
$500 + 250 = 750$.

750 vibrations in 15 seconds.

c) 1 minute = 60 seconds.

$$\begin{array}{r} 15 \\ \times 60 \\ \hline 900 \\ \hline 3 \end{array}$$

900 vibrations in 1 minute.

d) 1 hour = 60 minutes.

$$\begin{array}{r} 900 \\ \times \quad 60 \\ \hline 54000 \end{array}$$

54,000 vibrations in 1 hour.

8. a) $\begin{array}{r} 18\overset{6}{\cancel{7}}\overset{1}{6} \\ -1847 \\ \hline 0029 \end{array}$

He was 29 when he finished inventing the telephone.

b) $\begin{array}{r} \overset{8}{\cancel{1}}\overset{1}{9}\overset{1}{\cancel{2}}\overset{1}{2} \\ -1847 \\ \hline 0075 \end{array}$

He was 75 years old when he died.

9. 5 miles = 8km
×5 ↓ ↓ ×5
25 miles = 40km

25 miles is the same as 40km.

10. The current population of Greece is 10,720,000.

11. a) Three pairs means six legs.

$$6 \overline{)\,6\,8^{2}4\,} = 114$$

There are 114 insects.

b)
$$\begin{array}{r} 349 \\ \times \quad 6 \\ \hline 2094 \\ \hline {\scriptstyle 2\,5} \end{array}$$

There are 2094 legs.

12. There are 100 cm in a m.
So 5.5m = 550 cm.

$$\begin{array}{r} 5\,8^{4}\,'0 \\ -\quad 3 \\ \hline 547 \end{array}$$

The difference between their heights is 547cm.