

# Weekly Quiz

## Questions:

Week 10 – Solutions to the maths office by Thursday 28th October

1. My friend has been collecting for his favourite charity and has £500 entirely in 5p coins. How many coins is that?
2. On a digital clock the numbers are displayed by lighting up some of the seven bars, for example 8 uses all 7 bars as shown and 8 does not equal 7.....however which numbers do use the same number of bars as the number itself?

3. What is the value of  $\frac{4}{1-\frac{3}{4}}$ ?

4. In this multiplication each letter stands for a different digit. What does each letter stand for?

$$\begin{array}{r} A6BC \\ \times \quad 7 \\ \hline D9E98 \\ \hline \end{array}$$

5. A train travelling at constant speed passes a pole in thirty seconds, and it passes completely through a 500 metre tunnel in one minute and twenty seconds. How long is the train?

# Weekly Quiz

## Solutions:

Week 10 – 28/10/04

1. £500 out of 5p coins. 10000 coins in total.

2. four and five

$$3. \frac{4}{1 - \frac{3}{4}} = \frac{4}{\frac{1}{4}} = 16$$

4.

$$\begin{array}{r} A \ 6 \ B \ C \\ \times \quad 7 \\ \hline D \ 9 \ E \ 9 \ 8 \end{array}$$

$$\begin{array}{r} 5 \ 6 \ 1 \ 4 \\ \times \quad 7 \\ \hline 3 \ 9 \ 2 \ 9 \ 8 \end{array}$$

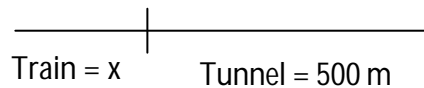
Therefore  $A = 5, B = 1, C = 4, D = 3, E = 2$

5. Travels past post in 30 seconds. i.e.  $\frac{x}{30}$  m per sec

Distance for train to go through tunnel is  $500 + x$  in 80 seconds

$$500 + x = 80 \left( \frac{x}{30} \right)$$

$$x = 300$$



Train is 300 m long.