

# Fractions, Decimals and Percentages

## Countdown Answers

$$1) \frac{2}{5} \times \frac{3}{9} = \frac{6}{45}$$

$$2) 3 \frac{3 \times 3}{7 \times 3} + 2 \frac{5}{21}$$

Make the denominators the same!

$$3 \frac{9}{21} + 2 \frac{5}{21} = 5 \frac{14}{21} \text{ (or } 5 \frac{2}{3} \text{ if simplified)}$$

$$3) 4 \times 3 \frac{6}{9}$$

$$4 \times 3 = 12$$

$$\frac{4}{1} \times \frac{6}{9} = \frac{24}{9} = 2 \frac{6}{9}$$

$$12 + 2 \frac{6}{9} = 14 \frac{6}{9} \text{ (or } 14 \frac{2}{3} \text{ if simplified)}$$

$$4) \frac{3}{4} \div \frac{7}{1}$$

$$\frac{3}{4} \times \frac{1}{7} = \frac{3}{28}$$

Keep 1st fraction  
Flip 2nd  
Change sign ( $\div \rightarrow \times$ )

$$5) \frac{2}{9} \div \frac{4}{6}$$

$$\frac{2}{9} \times \frac{6}{4} = \frac{12}{36} \text{ (or } \frac{1}{3} \text{ if simplified)}$$

$$6) 4 \frac{1 \times 3}{4 \times 3} - 1 \frac{2 \times 2}{6 \times 2}$$

Make the denominators the same.

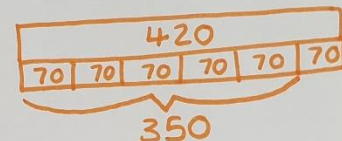
$$4 \frac{3}{12} - 1 \frac{4}{12} =$$

Convert them into improper fractions.

$$\frac{51}{12} - \frac{16}{12} = \frac{35}{12} = 2 \frac{11}{12}$$

You can't leave it as an improper fraction!

$$7) \frac{5}{6} \text{ of } 420$$



$$\frac{1}{6} = 70$$

I know  $7 \times 6 = 42$

so  $42 \div 6 = 7$

so  $420 \div 6 = 70$

$$\frac{5}{6} = 350$$

$70 \times 5 = 350$  (because  $7 \times 5 = 35$ )

$$8) \begin{array}{ccccc} 0.7 & 72\% & \frac{3}{4} & \frac{8}{10} & 0.07 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 70\% & 72\% & 75\% & \frac{80}{100} & 7\% \\ & & & \downarrow & \\ & & & 80\% & \end{array}$$

largest  $\frac{8}{10}$   $\frac{3}{4}$  72% 0.7 0.07 smallest

$$9) \frac{6}{7} = 6 \div 7$$

$$7 \overline{) 6.0000} \begin{array}{l} 0.857 \dots \\ \underline{56} \phantom{000} \\ 40 \phantom{00} \\ \underline{35} \phantom{00} \\ 50 \phantom{0} \\ \underline{49} \phantom{0} \\ 10 \phantom{0} \end{array}$$

$\frac{0.86}{10}$  when rounded to 2 decimal places

$$10) 10\% \text{ of } 580 = 58 \leftarrow 580 \div 10$$

$$25\% \text{ of } 580 = 145 \leftarrow 50\% = 290$$

$$23\% \text{ of } 580 = 133.4$$

option 1

$$25\% - 2\% = 23\%$$

$$\downarrow$$
$$145 - 11.6 = \underline{133.4}$$
$$1\% = 5.8$$
$$2\% = 11.6$$

option 2

$$20\% + 3\% = \underline{133.4}$$

$$10\% = 58 \quad \underline{20\% = 116}$$

$$1\% = 5.8 \quad \underline{3\% = 17.4}$$

$$\begin{array}{r} 116.0 \\ 17.4 \\ \hline 133.4 \end{array}$$

$$\begin{array}{r} 580 \\ \downarrow \quad \uparrow \\ 250 + 40 \\ \text{Half it again} \\ 290 \\ \downarrow \quad \uparrow \\ 100 + 45 = \underline{145} = 25\% \end{array}$$