



National 5 - Home Ex 1 Solutions
BODMAS, Scientific Notation, SIG FIG and FRACTIONS

1. Calculate...

$$\begin{aligned} \text{(a)} \quad (14 + 2) \div 4 + 5 \\ = 4 + 5 \\ = \underline{9} \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad 4^3 - 4 \div 2 \\ = 64 - 2 \\ = \underline{62} \end{aligned}$$

$$\begin{aligned} \text{(c)} \quad 10 + 72 \div 8 - 6 \\ = 10 + 9 - 6 \\ = \underline{13} \end{aligned}$$

2. (a) $324902 = \underline{320000}$ (2s.f)

(b) $0.07456 = \underline{0.075}$ (2s.f)

(c) $1.050505 = \underline{1.1}$ (2s.f)

3. $3 \times 10^5 \times 5.5 \times 1000$
 $= \underline{1.65 \times 10^9}$

4. Evaluate

$$\begin{aligned} \text{(a)} \quad 2\frac{2}{3} + 3\frac{5}{8} \\ = 5\frac{16}{24} + \frac{15}{24} \\ = 5\frac{31}{24} \\ = \underline{\underline{6\frac{7}{24}}} \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad 5\frac{5}{12} - 1\frac{9}{10} \\ = 4\frac{25}{60} - \frac{54}{60} \\ = 3\frac{85}{60} - \frac{54}{60} \\ = 3\frac{31}{60} \\ = \underline{\underline{3\frac{31}{60}}} \end{aligned}$$

$$\begin{aligned} \text{(c)} \quad 4\frac{1}{6} \times 3\frac{3}{5} \\ = \frac{25}{6} \times \frac{18}{5} \\ = \frac{5}{1} \times \frac{3}{1} \\ = \underline{\underline{15}} \end{aligned}$$

$$\begin{aligned} \text{(d)} \quad 1\frac{2}{3} \div 2\frac{4}{5} \\ = \frac{5}{3} \div \frac{14}{5} \\ = \frac{5}{3} \times \frac{5}{14} \\ = \frac{25}{42} \\ = \underline{\underline{\frac{25}{42}}} \end{aligned}$$

$$\begin{aligned} \text{(e)} \quad \frac{2}{7} \left(1\frac{3}{4} + \frac{3}{8} \right) \\ = \frac{2}{7} \left(1\frac{6}{8} + \frac{3}{8} \right) \\ = \frac{2}{7} \left(2\frac{1}{8} \right) \\ = \frac{2}{7} \times \frac{17}{8} \\ = \frac{17}{28} \\ = \underline{\underline{\frac{17}{28}}} \end{aligned}$$

$$\begin{aligned} \text{(f)} \quad \frac{2}{5} \left(3\frac{1}{2} + \frac{4}{5} \right) \\ = \frac{2}{5} \left(3\frac{5}{10} + \frac{8}{10} \right) \\ = \frac{2}{5} \times 4\frac{3}{10} \\ = \frac{2}{5} \times \frac{43}{10} \\ = \frac{43}{25} \text{ or } \underline{\underline{\frac{18}{25}}} \end{aligned}$$

End of Home Ex