

## Week 1: Numeracy

## Solutions

- 2.375
- $\frac{5}{10} \frac{4}{100} \frac{6}{1000} \frac{7}{10000}$ , i.e. 5 tenths, 4 hundredths, 6 thousandths, 7 ten thousandths
- Since  $\frac{3}{8}$  is less than  $\frac{1}{2}$ , and  $\frac{4}{5}$  is less than 1, then  $\frac{3}{8} \times \frac{4}{5} < \frac{1}{2} \times 1 < \frac{1}{2}$ .  
 $\frac{3}{8} \times \frac{4}{5} = \frac{12}{40} = \frac{3}{10}$ .
- Both fractions are greater than  $\frac{1}{2}$  so adding them together will give an answer greater than 1.  $\frac{7}{10} + \frac{3}{5} = \frac{7}{10} + \frac{6}{10} = \frac{13}{10} = 1\frac{3}{10}$
- $\frac{11}{20} - \frac{1}{3} = \frac{33}{60} - \frac{20}{60} = \frac{13}{60}$
- Division by powers of the same number means we subtract the indices.  $5^7 \div 5^4 = 5^3$
- $4^{-2} = \frac{1}{4^2} = \frac{1}{16}$  (= 0.0625)
- $7^0 + 12^1 = 1 + 12 = 13$
- $\frac{39}{65} \times 100\% = 60\%$
- Decrease =  $2370 - 1896 = 474$ . Percentage decrease =  $\frac{474}{2370} \times 100\% = 20\%$
- $\frac{16}{w} = \frac{56}{21}$ . Rearranging we get  $w = 16 \times \frac{21}{56} = 16 \times \frac{3}{8} = 6$
- The scale is 5cm: 10m or 5cm:  $10 \times 100\text{cm} = 5: 1000$  or 1: 200