

HCF, LCM and Rounding

Ex1 Find the HCF and LCM of
84 and 120

$$\begin{array}{r} 2 \overline{)84} \\ 2 \overline{)42} \\ 3 \overline{)21} \\ 7 \overline{)7} \\ 1 \end{array}$$

$$\begin{array}{r} 2 \overline{)120} \\ 2 \overline{)60} \\ 2 \overline{)30} \\ 3 \overline{)15} \\ 5 \overline{)5} \\ 1 \end{array}$$

$$84 = 2 \times 2 \times 3 \times 7$$

$$120 = 2 \times 2 \times 2 \times 3 \times 5$$

$$\text{HCF} = 2 \times 2 \times 3 = 12$$

$$\text{LCM} = 2 \times 2 \times 2 \times 3 \times 5 \times 7 = 840$$

Find the LCM by writing one number as the product of its prime factors, then multiply by any factors of the other number not already included

Alternatively the LCM can be found by listing the multiples of each of the two numbers until they have one in common

84 168 252 336 420 504 588 672 756 840

120 240 360 480 600 720 840 960

Rounding and Truncating

Ex1 4817.637

Round to 2 dec places d.p.

4817.64

Truncate to 2 d.p.

4817.63

Round to 2 significant figures sig. fig.

4800

Significant Figures

Give 318562

to 1 sig fig 2 sig fig 3 s.f. 4 s.f.

300,000 320,000 319,000 318,600

Give 0.00041658

to 1 s.f. 2 s.f. 3 s.f. 4 s.f.

0.0004 0.00042 0.000417 0.0004166