

Long Division

Ex 1 $4488 \div 17$

- 1 17
- 2 34
- 3 51
- 4 68
- 5 85
- 6 102
- 7 119
- 8 136
- 9 153
- 10 170

$$\begin{array}{r} 0264 \\ 17 \overline{) 4488} \\ \underline{34} \\ 108 \\ \underline{102} \\ 68 \\ \underline{68} \\ 0 \end{array}$$

Answer 264

Ex 2 $51765 \div 17$

$$\begin{array}{r} 03045 \\ 17 \overline{) 51765} \\ \underline{51} \\ 076 \\ \underline{68} \\ 85 \\ \underline{85} \\ 0 \end{array}$$

Answer = 3045

Exercise

1) $6647 \div 17$

$$\begin{array}{r} 391 \\ 17 \overline{) 6647} \\ \underline{51} \\ 154 \\ \underline{153} \\ 17 \\ \underline{17} \\ 0 \end{array}$$

Ans = 391

2) $4828 \div 17$

$$\begin{array}{r} 284 \\ 17 \overline{) 4828} \\ \underline{34} \\ 142 \\ \underline{136} \\ 68 \\ \underline{68} \\ 0 \end{array}$$

Ans = 284

3) $96526 \div 17$

$$\begin{array}{r} 5678 \\ 17 \overline{) 96526} \\ \underline{85} \\ 115 \\ \underline{102} \\ 132 \\ \underline{119} \\ 136 \\ \underline{136} \\ 0 \end{array}$$

Ans = 5678

$$4) \quad 8568 \div 24$$

1	24	
2	48	
3	72	
4	96	
5	120	
6	144	
7	168	
8	192	
9	216	
10	240	

$$24 \overline{) 8568}$$

$$\begin{array}{r} 357 \\ \underline{72} \\ 136 \\ \underline{120} \\ 168 \\ \underline{168} \\ 0 \end{array}$$

Answer
= 357

$$5) \quad 69370 \div 14$$

1	14	
2	28	
3	42	
4	56	
5	70	
6	84	
7	98	
8	112	
9	126	
10	140	

$$14 \overline{) 69370}$$

$$\begin{array}{r} 4955 \\ \underline{56} \\ 133 \\ \underline{126} \\ 77 \\ \underline{70} \\ 70 \\ \underline{70} \\ 0 \end{array}$$

Answer
= 4955

We avoid dividing by decimal numbers when not using a calculator

Notice that $\frac{6}{2} = 3$, $\frac{60}{20} = 3$, $\frac{600}{200} = 3$

Suppose some students went to the cinema and tickets were £5.40 each. If the bill was £351 how many students were there?

$$£351 \div £5.40 = £5.4$$

$$\begin{aligned} & 351 \div 5.4 \\ = & 3510 \div 54 \end{aligned}$$

$$\begin{array}{r} 54 \\ \times 7 \\ \hline 378 \\ \\ 54 \\ \times 26 \\ \hline 324 \end{array}$$

$$\begin{array}{r} 65 \\ 54 \overline{) 3510} \\ \underline{324} \\ 270 \\ \underline{270} \\ 0 \end{array}$$

65 students
at cinema

Long Multiplication Recap

Example 3.46×0.83

$$\begin{array}{r} 346 \\ \times 83 \\ \hline 1038 \\ 27680 \\ \hline 28718 \\ 2.8718 \end{array}$$

Exercise

1) 4.12×51

$$\begin{array}{r} 412 \\ \times 51 \\ \hline 412 \\ 20600 \\ \hline 21012 \\ 210.12 \end{array}$$

2) 47.3×18

$$\begin{array}{r} 473 \\ \times 18 \\ \hline 3784 \\ 4730 \\ \hline 8514 \\ 851.4 \end{array}$$