

We use multiplication to solve division.

$12 \div 4$ asks us to work out how many groups of 4 are there in 12

To solve $12 \div 4$ we need to ask the question $4 \times \underline{\quad} = 12$

$4 \times 3 = 12$ so $12 \div 4 = 3$ and $12 \div 3 = 4$

If $4 \times 3 = 12$ then $40 \times 3 = 120$ and $4 \times 30 = 120$

Then

$12 \div 3 = 4$ and $120 \div 3 = 40$ and $120 \div 4 = 30$

$12 \div 4 = 3$ and $120 \div 4 = 30$ and $120 \div 3 = 40$

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$$366 \div 6 = 61$$

$$360/6 + 6/6$$

$$60 + 1$$

$$549 \div 9 =$$

$$\underline{\quad}/9 + \underline{\quad}/9$$

$$\underline{\quad} + \underline{\quad}$$

$$488 \div 8 =$$

$$\underline{\quad}/8 + \underline{\quad}/8$$

$$\underline{\quad} + \underline{\quad}$$

$$244 \div 4 =$$

$$\underline{\quad}/4 + \underline{\quad}/4$$

$$\underline{\quad} + \underline{\quad}$$

Building Up of **Building Down** is similar to the strategy **Guess, Check and Adjust**

$$1236 \div 4 =$$

$$4 \times 300 = 1200$$

$$4 \times 310 = 1240$$

$$4 \times 309 = 1236 \text{ so } 1236 \div 4 = 309$$

$$9 \times 6 = 54$$

$$54 \div 6 =$$

$$54 \div 9 =$$

$$4 \times 8 = 32$$

$$32 \div 8 =$$

$$32 \div 4 =$$

$$21 \div 7 =$$

$$18 \div 3 =$$

$$36 \div 6 =$$

$$42 \div 7 =$$

$$9 \times 60 = 540$$

$$540 \div 6 =$$

$$540 \div 9 =$$

$$40 \times 8 = 320$$

$$320 \div 8 =$$

$$30 \times 7 = 210$$

$$210 \div 7 =$$

$$4 \times 90 = 360$$

$$360 \div 4 =$$

DISTRIBUTIVE LAW of MULTIPLICATION

$$12 \times 35$$

$$12 \text{ groups of } 35 = (10 \text{ groups of } 35) + (2 \text{ groups of } 35)$$

$$12 \times 35 =$$

$$(10 + 2) \times 35 = 10 \times 35 + 2 \times 35$$

$$= 350 + 70$$

$$= 420$$

We can use the distributive law for DIVISION

$$420 \div 4 =$$

$$400 + 20$$

We can split the 420 into multiples of 4

$$420 \div 4 = 105$$

$$400 \div 4 + 20 \div 4$$

$$100 + 5$$

/ is another symbol for division

$$400 \div 4 = 400/4$$

$$636 \div 6 =$$

$$600/6 + 36/6$$

$$100 + 6$$

$$424 \div 4 =$$

$$\underline{\quad}/4 + \underline{\quad}/4$$

$$\underline{\quad} + \underline{\quad}$$

$$824 \div 8 =$$

$$\underline{\quad}/8 + \underline{\quad}/8$$

$$\underline{\quad} + \underline{\quad}$$

Try Building Down

$$460 \div 5 =$$

$$90 \times 5 =$$

$$91 \times 5 =$$

$$92 \times 5 =$$

$$1212 \div 4 =$$

$$300 \times 4 =$$

$$301 \times 4 =$$

$$302 \times 4 =$$

$$303 \times 4 =$$