

I) Multiplying Decimals

$$5.75 \times 30.2$$

① Multiply whole numbers first

$$575 \times 302$$

$$\begin{array}{r} 575 \\ ^{+1} ^{+1} \\ \times 302 \\ \hline 1150 \\ 0000 \\ 172500 \\ \hline 173650 \end{array}$$

$$173650$$

② 5.75 has 2 decimal places (dp)

30.2 has 1 dp

so $2+1=3$ dp

③ Add 3 dp to 173650

$$173.650$$

II) Multiplying powers of 10 with decimals

$$5.75 \times 10$$

$$5.75$$

- ① $\times$ or Multiply means decimal place moves to right
- ② How many places? Depends on number of zeroes in power of 10

10 has 1 zero so 1 place

$$5 \overline{) 57.5}$$

$$57.5$$

III) Dividing Decimals

$$6.75 \div 0.5$$

① Divide whole numbers first

$$675 \div 5$$

$$\begin{array}{r} 135 \\ 5 \overline{) 675} \end{array}$$

$$135$$

② Calculate numerator dp

6.75 has 2 dp

③ Calculate denominator dp

0.5 has 1 dp

④ Total dp = 2 dp - 1 dp = 1 dp
in final answer

$$13.5$$

IV) Divide powers of 10 with decimals :

$$67.7 \div 100$$

100 has 2 zeroes, so move ^{dp} to left 2 places

$$67.7 \rightarrow 0.677$$