

2.5 Multiplying Decimals

- * Multiply as you would with whole numbers
- Count the number of decimal places in the decimal factor.
 - The product has the same number of decimal places.

[Ex] Find 6×3.91 [Ex] 3×0.016

Estimate

$$\begin{array}{r} 3.91 \approx 4 \\ \times 6 \approx 6 \\ \hline 23.46 \approx 24 \checkmark \\ 23.46 \end{array}$$

$$\begin{array}{r} 0.016 \approx 0 \\ \times 3 \approx 3 \\ \hline 0048 \quad 0 \\ = .048 \end{array}$$

[Ex] $4.716 \approx 5$

$$\begin{array}{r} 4.716 \approx 5 \\ \times 0.2 \approx 0 \\ \hline 09432 \approx 0 \\ = 0.9432 \end{array}$$

[Ex] $4.8 \approx 5$

$$\begin{array}{r} 4.8 \approx 5 \\ \times 7.2 \approx 7 \\ \hline 0096 \approx 35 \\ + 3360 \\ \hline 34.56 \checkmark \end{array}$$

1) $12.3 \times 8 = 98.4$ 2) $14.51 \times 5 = 72.55$ 3) $0.88 \times 9 = 7.92$ 4) $0.003 \times 10 = 0.030$

5) $8.1 \times 5.6 = 45.36$ 6) $9.04 \times 2.7 = 24.408$ 7) $6.32 \times 0.09 = 0.5688$

2.6 Dividing Decimals

- Place the decimal point in the quotient above the decimal point in the dividend.
- Then divide as you would with whole numbers.
- Continue until there is no remainder.

$$\begin{array}{r} 1.83 \leftarrow \text{quotient} \\ \text{divisor} \rightarrow 4 \overline{) 7.32} \leftarrow \text{Dividend} \end{array}$$

$$\boxed{\text{Ex}} \quad \approx 8 \div 4 \approx 2 \quad \begin{array}{r} 1.9 \\ 4 \overline{) 7.6} \\ \underline{-4} \\ 36 \end{array} \approx 1.9$$

$$\boxed{\text{Ex}} \quad \begin{array}{r} 0.365 \\ 4 \overline{) 1.380} \\ \underline{-36} \\ 78 \\ \underline{-72} \\ 60 \\ \underline{-60} \\ 0 \end{array}$$

* Divide a decimal by a decimal

(multiply by 10)

$$\boxed{\text{Ex a}} \quad 18.2 \div 1.4$$

$$1.4 \overline{) 18.2} \quad \text{rewrite}$$

$$14 \overline{) 182.0} = 13$$

$$\begin{array}{r} 13.0 \\ \underline{-14} \\ 42 \\ \underline{-42} \\ 0 \end{array}$$

(multiply by 100)

$$\text{b) } 0.39 \overline{) 0.273} \quad \text{rewrite}$$

$$39 \overline{) 27.3}$$

$$\begin{array}{r} 0.7 \\ \underline{27.3} \\ 0 \end{array}$$