

Adding and subtracting decimals

- Line up the decimal places, and then add or subtract.

Examples:

$$\begin{array}{r} 3.2410 \\ 3.241 + 214.4 + 90.0318 \rightarrow 214.4000 \\ + \underline{90.0318} \\ 307.6728 \end{array}$$

$$\begin{array}{r} 15.8200 \\ 15.82 - 7.9241 \rightarrow 15.8200 \\ - \underline{7.9241} \\ 7.8959 \end{array}$$

Practice:

- $1.8 + 45.06 =$
- $2.123 + 0.05 + 5.2674 =$
- $116.13 - 2.088 =$
- $3.1614 + 158.4 =$
- $31.4567 - 6.888 =$
- $1.3 + 2.34 + 78.148 =$
- $5.6 - 3.321 =$
- $0.0015 + 9.578 =$
- $98.6571 - 17.547 =$

Answers:

- 46.86
- 7.4404
- 114.042
- 161.5614
- 24.5687
- 81.788
- 2.279
- 9.5795
- 81.1101

Multiplying decimals

- 1) Ignore the decimals and determine the product
- 2) Examine the numbers that you multiplied and count the total number of digits to the right of the decimal
- 3) In your product, move the decimal point to the left the same number of places

Examples:

$18.456 \times 8.6 \rightarrow$

18456	86	← Rewrite numbers without decimals
×	86	
110736	1476480	
+	1476480	
1587216	158.7216	← Find the product
158.7216	←	← move decimal point 4 places to the <u>left</u>
	4 places	

Total of 4 digits to the right of the decimal point

Practice:

- a) $6.5 \times 0.84 =$
- b) $5.02 \times 16.84 =$
- c) $480.25 \times 0.06 =$
- d) $0.017 \times 0.53 =$
- e) $782.1 \times 1.46 =$

Answers:

- a) 5.46
- b) 84.5368
- c) 28.815
- d) 0.00901
- e) 1141.866

Dividing decimals

- 1) Move the decimals to the right until the divisor becomes an integer
- 2) Divide, keeping the decimal in the same location

Example:

$$11.22 \div 13.6 \quad \leftarrow \text{The divisor (13.6) is a decimal}$$

$$112.2 \div 136 \quad \leftarrow \text{Move the decimal point one place to the left to left}$$

$$\begin{array}{r} 0.825 \\ 136 \overline{)112.200} \\ \underline{1088} \\ 340 \\ \underline{272} \\ 680 \\ \underline{680} \\ 0 \end{array}$$

\leftarrow Carry out long division

Practice:

- a) $79.3 \div 1.22 =$
- b) $175.18 \div 4.75 =$
- c) $2.5228 \div 0.0035 =$
- d) $20.79 \div 6.6 =$
- e) $0.9 \div 0.0125 =$
- f) $258.75 \div 1.035 =$

Answers:

- a) 65
- b) 36.88
- c) 720.8
- d) 3.15
- e) 72
- f) 250