

Order of Operations with Decimals (F)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$(3.75 + 3.4) \div 1.25 \times (3.5)^2 - 1.6$$

$$8.9 + (8.2)^2 \times ((9.2 - 1.6) \div 7.6)$$

$$(2.7 - 2.2 \div 4.4) \times 8.2 + (8.5)^2$$

$$9.7 \div (3.4 - 2.4)^3 \times (5.6 + 2.2)$$

$$(5.8 \times 2.4 - (1.2)^2) \div 1.3 + 7.9$$

$$(5.6)^2 \div 1.4 + 9.8 \times (5.7 - 3.8)$$

$$(4.1 \times 9.4 + (4.9)^2) \div 4.5 - 6.8$$

$$(8.2)^2 \div 4.1 \times (1.1 + 5.9 - 3.2)$$

Order of Operations with Decimals (F) Answers

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & (\underline{3.75 + 3.4}) \div 1.25 \times (3.5)^2 - 1.6 \\ & = 7.15 \div 1.25 \times \underline{(3.5)^2} - 1.6 \\ & = \underline{7.15 \div 1.25} \times 12.25 - 1.6 \\ & = \underline{5.72 \times 12.25} - 1.6 \\ & = \underline{70.07 - 1.6} \\ & = 68.47 \end{aligned}$$

$$\begin{aligned} & 8.9 + (8.2)^2 \times ((\underline{9.2 - 1.6}) \div 7.6) \\ & = 8.9 + (8.2)^2 \times \underline{(7.6 \div 7.6)} \\ & = 8.9 + \underline{(8.2)^2} \times 1 \\ & = 8.9 + \underline{67.24 \times 1} \\ & = \underline{8.9 + 67.24} \\ & = 76.14 \end{aligned}$$

$$\begin{aligned} & (2.7 - \underline{2.2 \div 4.4}) \times 8.2 + (8.5)^2 \\ & = (\underline{2.7 - 0.5}) \times 8.2 + (8.5)^2 \\ & = 2.2 \times 8.2 + \underline{(8.5)^2} \\ & = \underline{2.2 \times 8.2} + 72.25 \\ & = \underline{18.04 + 72.25} \\ & = 90.29 \end{aligned}$$

$$\begin{aligned} & 9.7 \div (\underline{3.4 - 2.4})^3 \times (5.6 + 2.2) \\ & = 9.7 \div 1^3 \times \underline{(5.6 + 2.2)} \\ & = 9.7 \div \underline{1^3} \times 7.8 \\ & = \underline{9.7 \div 1} \times 7.8 \\ & = \underline{9.7 \times 7.8} \\ & = 75.66 \end{aligned}$$

$$\begin{aligned} & (5.8 \times 2.4 - \underline{(1.2)^2}) \div 1.3 + 7.9 \\ & = (\underline{5.8 \times 2.4} - 1.44) \div 1.3 + 7.9 \\ & = (\underline{13.92 - 1.44}) \div 1.3 + 7.9 \\ & = \underline{12.48 \div 1.3} + 7.9 \\ & = \underline{9.6 + 7.9} \\ & = 17.5 \end{aligned}$$

$$\begin{aligned} & (5.6)^2 \div 1.4 + 9.8 \times (\underline{5.7 - 3.8}) \\ & = \underline{(5.6)^2} \div 1.4 + 9.8 \times 1.9 \\ & = \underline{31.36 \div 1.4} + 9.8 \times 1.9 \\ & = 22.4 + \underline{9.8 \times 1.9} \\ & = \underline{22.4 + 18.62} \\ & = 41.02 \end{aligned}$$

$$\begin{aligned} & (4.1 \times 9.4 + \underline{(4.9)^2}) \div 4.5 - 6.8 \\ & = (\underline{4.1 \times 9.4} + 24.01) \div 4.5 - 6.8 \\ & = (\underline{38.54 + 24.01}) \div 4.5 - 6.8 \\ & = \underline{62.55 \div 4.5} - 6.8 \\ & = \underline{13.9 - 6.8} \\ & = 7.1 \end{aligned}$$

$$\begin{aligned} & (8.2)^2 \div 4.1 \times (\underline{1.1 + 5.9} - 3.2) \\ & = (8.2)^2 \div 4.1 \times \underline{(7 - 3.2)} \\ & = \underline{(8.2)^2} \div 4.1 \times 3.8 \\ & = \underline{67.24 \div 4.1} \times 3.8 \\ & = \underline{16.4 \times 3.8} \\ & = 62.32 \end{aligned}$$