

Order of Operations with Decimals (E)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$(2.6 \times 6.9) \div 0.25 + (3.7)^2 - (1.7)^2$$

$$0.25 \times ((3.8 + 2.4)^2 \div (4.6 - 1.5)^2)$$

$$((8.2 - 1.2) \times 9.4) \div 2.5 + (2.8)^2 - 3.9$$

$$((4.5 + 2.1) \div 3.75) \times (3.7 - 1.4 + 5.2)^2$$

$$(9.2)^2 - (2.5)^2 \times (6.2 + 5.2) \div 7.5$$

$$((1.6)^2 \times (8.7 + 9.3)) \div 1.8 - 3.7 - 1.9$$

Order of Operations with Decimals (E) Answers

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & (2.6 \times 6.9) \div 0.25 + (3.7)^2 - (1.7)^2 \\ &= 17.94 \div 0.25 + (3.7)^2 - (1.7)^2 \\ &= 17.94 \div 0.25 + 13.69 - (1.7)^2 \\ &= \underline{17.94 \div 0.25} + 13.69 - 2.89 \\ &= \underline{71.76 + 13.69} - 2.89 \\ &= \underline{85.45 - 2.89} \\ &= 82.56 \end{aligned}$$

$$\begin{aligned} & 0.25 \times \left((3.8 + 2.4)^2 \div (4.6 - 1.5)^2 \right) \\ &= 0.25 \times \left((6.2)^2 \div (4.6 - 1.5)^2 \right) \\ &= 0.25 \times \left((6.2)^2 \div (3.1)^2 \right) \\ &= 0.25 \times \left(38.44 \div (3.1)^2 \right) \\ &= 0.25 \times (38.44 \div 9.61) \\ &= \underline{0.25 \times 4} \\ &= 1 \end{aligned}$$

$$\begin{aligned} & ((8.2 - 1.2) \times 9.4) \div 2.5 + (2.8)^2 - 3.9 \\ &= (7 \times 9.4) \div 2.5 + (2.8)^2 - 3.9 \\ &= 65.8 \div 2.5 + (2.8)^2 - 3.9 \\ &= \underline{65.8 \div 2.5} + 7.84 - 3.9 \\ &= \underline{26.32 + 7.84} - 3.9 \\ &= \underline{34.16 - 3.9} \\ &= 30.26 \end{aligned}$$

$$\begin{aligned} & ((4.5 + 2.1) \div 3.75) \times (3.7 - 1.4 + 5.2)^2 \\ &= (6.6 \div 3.75) \times (3.7 - 1.4 + 5.2)^2 \\ &= 1.76 \times (3.7 - 1.4 + 5.2)^2 \\ &= 1.76 \times (2.3 + 5.2)^2 \\ &= 1.76 \times (7.5)^2 \\ &= \underline{1.76 \times 56.25} \\ &= 99 \end{aligned}$$

$$\begin{aligned} & (9.2)^2 - (2.5)^2 \times (6.2 + 5.2) \div 7.5 \\ &= (9.2)^2 - (2.5)^2 \times 11.4 \div 7.5 \\ &= 84.64 - (2.5)^2 \times 11.4 \div 7.5 \\ &= 84.64 - \underline{6.25 \times 11.4} \div 7.5 \\ &= 84.64 - \underline{71.25 \div 7.5} \\ &= \underline{84.64 - 9.5} \\ &= 75.14 \end{aligned}$$

$$\begin{aligned} & ((1.6)^2 \times (8.7 + 9.3)) \div 1.8 - 3.7 - 1.9 \\ &= \left((1.6)^2 \times 18 \right) \div 1.8 - 3.7 - 1.9 \\ &= (2.56 \times 18) \div 1.8 - 3.7 - 1.9 \\ &= \underline{46.08 \div 1.8} - 3.7 - 1.9 \\ &= \underline{25.6 - 3.7} - 1.9 \\ &= \underline{21.9 - 1.9} \\ &= 20 \end{aligned}$$