

Order of Operations with Decimals (D)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$(3.1 - (1.6)^2 + 4.6 \times 1.7) \div 1.1$$

$$((8.4)^2 \div 4.9 - 9.9) \times 8.3 + 7.5$$

$$((9.1)^2 + 2.4 \times 6.6 - 5.4) \div 2.5$$

$$8.4 \div (8.7 - 3.1) \times (4.6)^2 + 2.5$$

$$((7.7)^2 - 2.2 + 8.3) \div 1.3 \times 1.1$$

$$7.9 + 1.9 \div (5.6 - 3.7) \times (2.8)^2$$

$$(9.2 + 2.2 - (6.6)^2 \div 9.9) \times 4.1$$

$$((3.8)^2 - 3.4) \div (1.8 + 7.4) \times 1.9$$

Order of Operations with Decimals (D) Answers

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & (3.1 - \underline{(1.6)^2} + 4.6 \times 1.7) \div 1.1 \\ &= (3.1 - 2.56 + \underline{4.6 \times 1.7}) \div 1.1 \\ &= (\underline{3.1 - 2.56} + 7.82) \div 1.1 \\ &= (\underline{0.54 + 7.82}) \div 1.1 \\ &= \underline{8.36 \div 1.1} \\ &= 7.6 \end{aligned}$$

$$\begin{aligned} & (\underline{(8.4)^2} \div 4.9 - 9.9) \times 8.3 + 7.5 \\ &= (\underline{70.56 \div 4.9} - 9.9) \times 8.3 + 7.5 \\ &= (\underline{14.4 - 9.9}) \times 8.3 + 7.5 \\ &= \underline{4.5 \times 8.3} + 7.5 \\ &= \underline{37.35 + 7.5} \\ &= 44.85 \end{aligned}$$

$$\begin{aligned} & (\underline{(9.1)^2} + 2.4 \times 6.6 - 5.4) \div 2.5 \\ &= (82.81 + \underline{2.4 \times 6.6} - 5.4) \div 2.5 \\ &= (\underline{82.81 + 15.84} - 5.4) \div 2.5 \\ &= (\underline{98.65 - 5.4}) \div 2.5 \\ &= \underline{93.25 \div 2.5} \\ &= 37.3 \end{aligned}$$

$$\begin{aligned} & 8.4 \div (\underline{8.7 - 3.1}) \times (4.6)^2 + 2.5 \\ &= 8.4 \div 5.6 \times \underline{(4.6)^2} + 2.5 \\ &= \underline{8.4 \div 5.6} \times 21.16 + 2.5 \\ &= \underline{1.5 \times 21.16} + 2.5 \\ &= \underline{31.74 + 2.5} \\ &= 34.24 \end{aligned}$$

$$\begin{aligned} & (\underline{(7.7)^2} - 2.2 + 8.3) \div 1.3 \times 1.1 \\ &= (\underline{59.29 - 2.2} + 8.3) \div 1.3 \times 1.1 \\ &= (\underline{57.09 + 8.3}) \div 1.3 \times 1.1 \\ &= \underline{65.39 \div 1.3} \times 1.1 \\ &= \underline{50.3 \times 1.1} \\ &= 55.33 \end{aligned}$$

$$\begin{aligned} & 7.9 + 1.9 \div (\underline{5.6 - 3.7}) \times (2.8)^2 \\ &= 7.9 + 1.9 \div 1.9 \times \underline{(2.8)^2} \\ &= 7.9 + \underline{1.9 \div 1.9} \times 7.84 \\ &= 7.9 + \underline{1 \times 7.84} \\ &= \underline{7.9 + 7.84} \\ &= 15.74 \end{aligned}$$

$$\begin{aligned} & (9.2 + 2.2 - \underline{(6.6)^2} \div 9.9) \times 4.1 \\ &= (9.2 + 2.2 - \underline{43.56 \div 9.9}) \times 4.1 \\ &= (\underline{9.2 + 2.2} - 4.4) \times 4.1 \\ &= (\underline{11.4 - 4.4}) \times 4.1 \\ &= \underline{7 \times 4.1} \\ &= 28.7 \end{aligned}$$

$$\begin{aligned} & (\underline{(3.8)^2} - 3.4) \div (1.8 + 7.4) \times 1.9 \\ &= (\underline{14.44 - 3.4}) \div (1.8 + 7.4) \times 1.9 \\ &= 11.04 \div (\underline{1.8 + 7.4}) \times 1.9 \\ &= \underline{11.04 \div 9.2} \times 1.9 \\ &= \underline{1.2 \times 1.9} \\ &= 2.28 \end{aligned}$$