

Order of Operations with Decimals (A)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$(5.6 \times 1.5)^2 \div 9.8 + 2.4 - 6.8 + 7.2$$

$$(6.1 + (9.2)^2) \times ((0.5)^2 - 0.25) \div 4.1$$

$$4.4 + (8.5)^2 - 2.1 \times (5.4 \div 2.7)^2$$

$$(6.4 \times 1.5)^2 \div 2.4 + 0.2 - (5.3)^2$$

$$((9.5)^2 \div 2.5) \times (4.5 + 4.6 - 3.6 - 2.8)$$

$$((2.8)^2 + (6.6)^2 - 9.2) \times (2.1 \div 1.2)$$

Order of Operations with Decimals (A) Answers

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned}
 & (\underline{5.6} \times \underline{1.5})^2 \div 9.8 + 2.4 - 6.8 + 7.2 \\
 &= (\underline{8.4})^2 \div 9.8 + 2.4 - 6.8 + 7.2 \\
 &= \underline{70.56} \div \underline{9.8} + 2.4 - 6.8 + 7.2 \\
 &= \underline{7.2} + \underline{2.4} - 6.8 + 7.2 \\
 &= \underline{9.6} - \underline{6.8} + 7.2 \\
 &= \underline{2.8} + \underline{7.2} \\
 &= \underline{10}
 \end{aligned}$$

$$\begin{aligned}
 & (6.1 + \underline{(9.2)}^2) \times ((0.5)^2 - 0.25) \div 4.1 \\
 &= (\underline{6.1} + \underline{84.64}) \times ((0.5)^2 - 0.25) \div 4.1 \\
 &= 90.74 \times ((\underline{0.5})^2 - 0.25) \div 4.1 \\
 &= 90.74 \times (\underline{0.25} - \underline{0.25}) \div 4.1 \\
 &= \underline{90.74} \times \underline{0} \div 4.1 \\
 &= \underline{0} \div \underline{4.1} \\
 &= \underline{0}
 \end{aligned}$$

$$\begin{aligned}
 & 4.4 + (8.5)^2 - 2.1 \times (\underline{5.4} \div \underline{2.7})^2 \\
 &= 4.4 + (\underline{8.5})^2 - 2.1 \times 2^2 \\
 &= 4.4 + 72.25 - 2.1 \times \underline{2}^2 \\
 &= 4.4 + 72.25 - \underline{2.1} \times 4 \\
 &= \underline{4.4} + \underline{72.25} - 8.4 \\
 &= \underline{76.65} - \underline{8.4} \\
 &= \underline{68.25}
 \end{aligned}$$

$$\begin{aligned}
 & (\underline{6.4} \times \underline{1.5})^2 \div 2.4 + 0.2 - (5.3)^2 \\
 &= (\underline{9.6})^2 \div 2.4 + 0.2 - (\underline{5.3})^2 \\
 &= 92.16 \div 2.4 + 0.2 - \underline{(5.3)}^2 \\
 &= \underline{92.16} \div \underline{2.4} + 0.2 - 28.09 \\
 &= \underline{38.4} + \underline{0.2} - 28.09 \\
 &= \underline{38.6} - \underline{28.09} \\
 &= \underline{10.51}
 \end{aligned}$$

$$\begin{aligned}
 & (\underline{(9.5)}^2 \div 2.5) \times (4.5 + 4.6 - 3.6 - 2.8) \\
 &= (\underline{90.25} \div \underline{2.5}) \times (4.5 + 4.6 - 3.6 - 2.8) \\
 &= 36.1 \times (\underline{4.5} + \underline{4.6} - 3.6 - 2.8) \\
 &= 36.1 \times (\underline{9.1} - \underline{3.6} - 2.8) \\
 &= 36.1 \times (\underline{5.5} - \underline{2.8}) \\
 &= \underline{36.1} \times \underline{2.7} \\
 &= \underline{97.47}
 \end{aligned}$$

$$\begin{aligned}
 & (\underline{(2.8)}^2 + (6.6)^2 - 9.2) \times (2.1 \div 1.2) \\
 &= (7.84 + (\underline{6.6})^2 - 9.2) \times (2.1 \div 1.2) \\
 &= (\underline{7.84} + \underline{43.56} - 9.2) \times (2.1 \div 1.2) \\
 &= (\underline{51.4} - \underline{9.2}) \times (2.1 \div 1.2) \\
 &= 42.2 \times (\underline{2.1} \div \underline{1.2}) \\
 &= \underline{42.2} \times \underline{1.75} \\
 &= \underline{73.85}
 \end{aligned}$$