

Order of Operations with Decimals (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$((1.5)^2 \times 6.6) \div (9.8 + 8.6 - (3.8)^2)$$

$$((3.1)^2 - 3.4 + (6.3)^2) \times (2.4 \div 1.6)$$

$$(9.8 \div (1.4)^2) \times 3.5 - 3.1 + 2.7 \times 1.6$$

$$(8.4 \div 1.2) \times 6.7 + 1.1 - (4.1)^2 - 3.9$$

$$((4.8)^2 \div 3.6) \times 1.25 + 3.3 - 7.2 + 1.9$$

$$6.1 \times ((1.9 + 2.2 - 4.1) \div (1.6)^2)^3$$

Order of Operations with Decimals (B) Answers

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned}
 & (\underline{1.5}^2 \times 6.6) \div (9.8 + 8.6 - (3.8)^2) \\
 &= (\underline{2.25} \times 6.6) \div (9.8 + 8.6 - (3.8)^2) \\
 &= 14.85 \div (9.8 + 8.6 - \underline{(3.8)^2}) \\
 &= 14.85 \div (\underline{9.8} + \underline{8.6} - 14.44) \\
 &= 14.85 \div (\underline{18.4} - \underline{14.44}) \\
 &= \underline{14.85} \div \underline{3.96} \\
 &= \underline{3.75}
 \end{aligned}$$

$$\begin{aligned}
 & (\underline{3.1}^2 - 3.4 + (6.3)^2) \times (2.4 \div 1.6) \\
 &= (9.61 - 3.4 + \underline{(6.3)^2}) \times (2.4 \div 1.6) \\
 &= (\underline{9.61} - \underline{3.4} + \underline{39.69}) \times (2.4 \div 1.6) \\
 &= (\underline{6.21} + \underline{39.69}) \times (2.4 \div 1.6) \\
 &= 45.9 \times (\underline{2.4} \div \underline{1.6}) \\
 &= \underline{45.9} \times \underline{1.5} \\
 &= \underline{68.85}
 \end{aligned}$$

$$\begin{aligned}
 & (9.8 \div \underline{(1.4)^2}) \times 3.5 - 3.1 + 2.7 \times 1.6 \\
 &= (\underline{9.8} \div \underline{1.96}) \times 3.5 - 3.1 + 2.7 \times 1.6 \\
 &= \underline{5} \times \underline{3.5} - 3.1 + 2.7 \times 1.6 \\
 &= 17.5 - 3.1 + \underline{2.7} \times \underline{1.6} \\
 &= \underline{17.5} - \underline{3.1} + 4.32 \\
 &= \underline{14.4} + \underline{4.32} \\
 &= \underline{18.72}
 \end{aligned}$$

$$\begin{aligned}
 & (\underline{8.4} \div \underline{1.2}) \times 6.7 + 1.1 - (4.1)^2 - 3.9 \\
 &= 7 \times 6.7 + 1.1 - \underline{(4.1)^2} - 3.9 \\
 &= \underline{7} \times \underline{6.7} + 1.1 - 16.81 - 3.9 \\
 &= \underline{46.9} + \underline{1.1} - 16.81 - 3.9 \\
 &= \underline{48} - \underline{16.81} - 3.9 \\
 &= \underline{31.19} - \underline{3.9} \\
 &= \underline{27.29}
 \end{aligned}$$

$$\begin{aligned}
 & (\underline{4.8}^2 \div 3.6) \times 1.25 + 3.3 - 7.2 + 1.9 \\
 &= (\underline{23.04} \div \underline{3.6}) \times 1.25 + 3.3 - 7.2 + 1.9 \\
 &= \underline{6.4} \times \underline{1.25} + 3.3 - 7.2 + 1.9 \\
 &= \underline{8} + \underline{3.3} - 7.2 + 1.9 \\
 &= \underline{11.3} - \underline{7.2} + 1.9 \\
 &= \underline{4.1} + \underline{1.9} \\
 &= \underline{6}
 \end{aligned}$$

$$\begin{aligned}
 & 6.1 \times ((\underline{1.9} + \underline{2.2} - 4.1) \div (1.6)^2)^3 \\
 &= 6.1 \times ((\underline{4.1} - \underline{4.1}) \div (1.6)^2)^3 \\
 &= 6.1 \times (0 \div \underline{(1.6)^2})^3 \\
 &= 6.1 \times (\underline{0} \div \underline{2.56})^3 \\
 &= 6.1 \times \underline{0}^3 \\
 &= \underline{6.1} \times \underline{0} \\
 &= \underline{0}
 \end{aligned}$$