ORDER OF OPERATIONS

Name _____

Score _____

OF:43

Example 1: $\left(15 \div 1\frac{2}{3}\right) \times \left(-\frac{2}{3}\right)^2 + \frac{7}{2}$

$= 9 \times \frac{4}{9} + \frac{7}{2}$

$= 4 + \frac{7}{2}$

$= \mathbf{\frac{15}{2}}$ **or** $\mathbf{7\frac{1}{2}}$

Example 2: $(2.9 - 1.8)^2 \times 1.2 + 3.08$

$= 1.1^2 \times 1.2 + 3.08$

$= 1.21 \times 1.2 + 3.08$

$= 1.452 + 3.08$

$= \mathbf{4.532}$

Solve each expression.

1) $\left(\frac{1}{2} \times 2^2\right) \div \left(\frac{1}{4} + \frac{3}{2}\right)$

_____

2) $7.5^2 \div (2.8 - 3.8)$

_____

3) $8.5 \times (1.6^2 + 3.9 - 1.8)$

_____

4) $\left(-\frac{3}{4}\right)^2 \times \left(1\frac{2}{9} - \frac{2}{3}\right)$

_____

5) $3\frac{2}{3} + \left(\frac{5}{3}\right)^2 \times \left(\frac{2}{5} - \frac{1}{5}\right)^2$

_____

6) $(1.6 - 1.4)^2 \times 9.43 \div 4.1$

_____

7) $1.7^3 + 12.1 \times (2.5 \div 5^2) - 18.25$

_____

8) $\left(\frac{1}{5} \times \frac{5}{3^2} \div \frac{10}{18}\right) + \frac{1}{10} - \frac{1}{5}$

_____

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Answer key

OF:43

Example 1: $\left(15 \div 1\frac{2}{3}\right) \times \left(-\frac{2}{3}\right)^2 + \frac{7}{2}$

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$= \mathbf{4.532}$

Solve each expression.

1) $\left(\frac{1}{2} \times 2^2\right) \div \left(\frac{1}{4} + \frac{3}{2}\right)$

$\mathbf{1\frac{1}{7}}$

2) $7.5^2 \div (2.8 - 3.8)$

$\mathbf{-56.25}$

3) $8.5 \times (1.6^2 + 3.9 - 1.8)$

$\mathbf{39.61}$

4) $\left(-\frac{3}{4}\right)^2 \times \left(1\frac{2}{9} - \frac{2}{3}\right)$

$\mathbf{\frac{5}{16}}$

5) $3\frac{2}{3} + \left(\frac{5}{3}\right)^2 \times \left(\frac{2}{5} - \frac{1}{5}\right)^2$

$\mathbf{3\frac{7}{9}}$

6) $(1.6 - 1.4)^2 \times 9.43 \div 4.1$

$\mathbf{0.092}$

7) $1.7^3 + 12.1 \times (2.5 \div 5^2) - 18.25$

$\mathbf{-12.127}$

8) $\left(\frac{1}{5} \times \frac{5}{3^2} \div \frac{10}{18}\right) + \frac{1}{10} - \frac{1}{5}$

$\mathbf{\frac{1}{10}}$