

7th Grade Common Core Math
Order of Operations #3

Name: Key

Date: _____ Per: _____

Evaluate the following expressions. Show all of the necessary steps that we went over in class and circle your answer.

1. $150 - (18 + 6) \cdot 5$

$$150 - 24 \cdot 5$$

$$150 - 120$$

$$\boxed{30}$$

2. $12 \cdot 3^2 - 5$

$$12 \cdot 9 - 5$$

$$108 - 5$$

$$\boxed{103}$$

3. $(4.8 \div 4)5 + 11.2$

$$(1.2)5 + 11.2$$

$$6 + 11.2$$

$$\boxed{17.2}$$

4. $\frac{4.12 - 3(0.8)}{2.16 - (0.4)^2}$

$$\frac{4.12 - 2.4}{2.16 - .16}$$

$$\frac{1.72}{2}$$

$$\frac{1.72}{2}$$

$$.86$$

$$2$$

$$\boxed{.86}$$

5. $\frac{2}{3} \left(5\frac{1}{4} \right) - \left(1\frac{1}{2} \right)^2$

$$\frac{2}{3} \cdot \frac{21}{4} - \frac{3}{2} \cdot \frac{3}{2}$$

$$\frac{7}{2} - \frac{9}{4}$$

$$\frac{14}{4} - \frac{9}{4}$$

$$\frac{5}{4} \quad \boxed{1\frac{1}{4}}$$

Evaluate each expression for the given values. Show all steps and circle your answer.

6. $(1+x)^2 + 14 \div x + 5$ for $x=2$

$$\begin{aligned} & (1+2)^2 + 14 \div 2 + 5 \\ & 3^2 + 7 + 5 \\ & 9 + 7 + 5 \\ & 16 + 5 \\ & \boxed{21} \end{aligned}$$

7. $3y^3 - 2y$ for $y=3$

$$\begin{aligned} & 3 \cdot 3^3 - 2 \cdot 3 \\ & 3 \cdot 27 - 6 \\ & 81 - 6 \\ & \boxed{75} \end{aligned}$$

8. $\frac{b}{12} + 3a$ for $a = \frac{1}{2}$, $b=8$

$$\begin{aligned} & \frac{8}{12} + 3 \cdot \frac{1}{2} \\ & \frac{2}{3} + \frac{3}{2} \\ & \frac{4}{6} + \frac{9}{6} \\ & \frac{13}{6} \quad \boxed{2\frac{1}{6}} \end{aligned}$$

9. $7m - 3n^2$ for $m=2.8$, $n=1.5$

$$\begin{aligned} & 7(2.8) - 3(1.5)^2 \\ & 19.6 - 3(2.25) \\ & 19.6 - 6.75 \\ & \boxed{12.85} \end{aligned}$$

10. $xy + y^2$ for $x = 4\frac{1}{2}$, $y = \frac{2}{3}$

$$\begin{aligned} & \left[4\frac{1}{2} \cdot \frac{2}{3} \right] + \left[\frac{2}{3} \cdot \frac{2}{3} \right] \\ & \frac{9}{2} \cdot \frac{2}{3} + \frac{4}{9} \\ & 3 + \frac{4}{9} \\ & \boxed{3\frac{4}{9}} \end{aligned}$$