HOMEWORK: MATH INTERLUDES I – ORDER OF OPERATIONS

Remember – neatness and completeness count. Be sure to show each step. However, you may use a calculator to compute values within any given step. Also, please remember to place this assignment in your Math Interludes Notebook.

1) Use the order of operations to simplify each of the following expressions.

a) $-6^2 + (-3)^3 + (-4)^2$

b) $-2 \cdot 3^2 + (12 - 5)^2$

2) Use the order of operations to simplify each of the following expressions.

a) $3 + 2 \cdot 5$

b) $\frac{19-4}{5}$

c) $\sqrt{25 - 9}$

d) $\frac{2-\sqrt{36+64}}{2}$

3) Evaluate each expression for the given values of the variables.

a) $a + bx$ $\quad a = 14,\ b = -4,\ x = 3$

b) $mx + b$ $\quad m = 3,\ x = 2,\ b = -15$

c) $\frac{x-\mu}{\sigma}$ $\quad x = -8,\ \mu = 2.5,\ \sigma = 2$

4) For each of the following equations, find the indicated value.

a) Given $SE = \sqrt{\frac{P(1-P)}{n}}$

Find SE when $P = 0.4$ and $n = 30$ (round to four decimal places)

b) Given $V = \pi \cdot r^2 \cdot \frac{h}{3}$

Find V when $r = 2$ and $h = 8$ (round to the hundredths place)

Math Interludes I Homework:

1a) -47 **1b)** 31 **2a)** 13 **2b)** 3 **2c)** 4 **2d)** -4
3a) 2 **3b)** -9 **3c)** -5.25 **4a)** 0.0894 **4b)** 33.51