

**SchoolNova, Math 5c**  
**Homework 4**  
**Operations with Integers, Properties of Addition and Multiplication,**  
**Introducing Algebra**  
**October 6, 2019**

Please provide sufficient details about how you solved the problem. More difficult problems are marked with a \*. If unable to solve a problem, please present your thoughts and any partial solution.

1. Compute the following sums/differences:

(a)  $-7 + (-14)$

(b)  $-54 - (-20)$

(c)  $-(-99 + (-1))$

(d)  $(-10) + (-11) + (-12)$

(e)  $-15 - (13 - (-7))$

2. Compute the following products:

(a)  $(-7) \times 6$

(b)  $(-8) \times (-9)$

(c)  $(-5) \times (6) \times (-10)$

(d)  $(-1) \times (-2) \times (-3) \times (-4) \times (-5)$

(e)  $2 \times 2 \times 2 \times 2 \times 2$

(f)  $(-2) \times (-2) \times (-2) \times (-2) \times (-2)$

3. Compute the following expressions (utilize the properties of addition and multiplication):

(a)  $73 \times 2 + 73 \times 8$

(b)  $150 \times (-2) + (-150) \times (18)$

(c)  $1846 \times 99 - (-1846)$

(d)  $1569 \times 87 - 569 \times 87$

4. Solve the following equations for  $x$ :

(a)  $x + 10 = 37$

(b)  $5x = x + 20$

(c)  $3x = 24$

(d)  $\frac{x}{8} = 2$

5. The population of a certain species of insects is  $x$  now. It becomes  $y$  times itself after each week. What will be its population after 3 weeks?
  
6. An orange costs 2 cents more than an apple. A grapefruit costs as much as 3 oranges. A fruit basket consists of 10 apples, 5 oranges and a grapefruit.
  - (a) Using the given information, write down expressions for the price of fruits. Denote the price of an apple by the letter  $a$ , orange by the letter  $o$ , and grapefruit by the letter  $g$ .
  - (b) If the fruit basket costs \$1.96, how much does each fruit cost?
  
7. Write down the lower case Greek alphabet (that is, the symbols and the names). For example:  
 $\alpha$  alpha  
 $\beta$  beta  
:  
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