Math 7CP Homework
Dec 16 – 19, 2019

Name _____
Per _____ Date _____

BOLDED – CALCULATOR OKAY
NOT BOLDED – DO NOT USE CALCULATOR

MONDAY
1. There are 16 bacteria in a beaker. What is the constant of proportionality in the table? Make a ratio table to solve:

time	1	2	3	4	5
# bac	16				80

2. You can buy 4 tickets for $75 or 5 tickets for $94. Are the costs proportional (think *is it fair*)? _____ Explain your answer:

_____

_____

3. Solve $\dfrac{x}{2}+11=53$ and write down what you think or do for each step:

_____

_____

_____

4. Place the following numbers on the number line:

a) –3.64   b) $-\dfrac{11}{6}$ c) –1.27   d) $-3\dfrac{3}{5}$ e) $\dfrac{1}{4}$ of –12.4   f) –2.6

5. Simplify the expressions by combining like terms:

    a. 6c – 2(3m + 2s) – (c + 3f) + 9m   **b**. 4(2f + 3x) – 11x – 3(f + 1) + 6

TUESDAY
1. There are 14 sticks of gum in a package. I bought some gum, 308 sticks in total. How many packages is this? Make a ratio table to solve:

packs	1				
sticks	14				308

2. You can buy 7 boxes of popcorn for $33 or 4 boxes for $16. Are the costs proportional (think *are the unit prices the same*)? _____ Explain your answer:

_____

_____

3. Solve $\dfrac{x}{3} - 10 = -7$ and write check your answer:

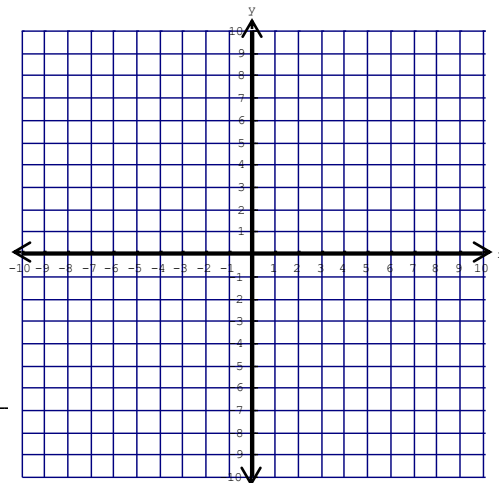**4.** Solve the proportions.

a. $\dfrac{11}{27} = \dfrac{x}{9}$

b. $\dfrac{5}{5x} = \dfrac{2}{6}$

5. Create a graph and rule based on the given table:

Rule: _____

Graph:

x	y
-2	4
-1	2
0	0
1	-2
2	-4

What is the constant of proportionality? _____

WEDNESDAY

1. One of the ideas that you have explored in previous courses is how to describe a set of data. One of the ways that you may have seen before is finding an average (also called a mean). Find the mean for each set of data below.
   A. Jane's quiz scores: 82, 64, 73, 91, 85

   B. The number of cats your teammates have as pets: 0, 1, 3, 2

   C. The number of minutes Pam talked on the phone: 35, 40, 12, 16, 25, 10

2. Ace bought 8 bags of dog treats for $23.14. How many bags did he buy for $8.70?

3. Solve $8(x + 8) = 24$ and check your answer:

4. Write a proportion and solve: If the world was 100 people, 5 would speak English. In a room of 1, 452 people, how many should speak English?