Geometry Lomac 2015-2016 **Date** 10/26 **due** 10/27 **Review 3.9L**

Name _____ **Per**_____

LO: I can model situations with linear equations and use the equations to answer questions about the situations.

☐ **DO NOW** On the back of this packet

☐ (1) **Need to know:**

- **Identify domain, range, maximum, minimum, y-intercept, x-intercept, slope**
- **Given one form of information, be able to derive the other representations: 2 points or a point and the slope, linear equations, graphs, and words**
- **Solve for y to write equations in y = mx + b form**
- **Any concepts covered in lessons 3.1 through 3.8**

☐ (2) **Write an equation of the line passing through the points**

3) through: $(-4, 0)$ and $(1, 5)$

4) through: $(-4, -2)$ and $(-3, 5)$

☐ (3) **Write an equation for the line given its slope and a point**

9. $(5, -1)$, $m = \frac{1}{5}$

10. $(-3, -2)$, $m = \frac{1}{4}$

☐ (4) **Linear Modeling given two points (two inputs and their resulting outputs)**

2. Driving Home Problem: As you drive home from the football game, the number of kilometers you are away from home depends on the number of minutes you have been driving. Assume that the distance varies linearly with time. Suppose you are 11 km from home when you have been driving for 10 minutes, and 8 km from home when you have been driving for 15 minutes.

a. Write the particular equation expressing the number of kilometers you are from home (d) in terms of the number of minutes since you left the game (t).

b. Predict your distance from home after driving for 20 min., 25 min., and 30 min.

c. When were you are 7 km from home, how many minutes have you been traveling?

d. Find the distance-intercept. What does this number represent in the real world?

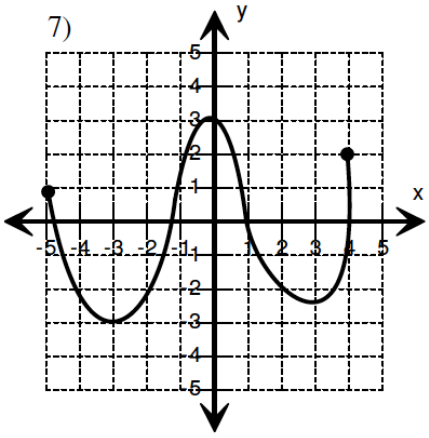
e. Find the time-intercept. What does this number represent in the real world?

f. Plot the graph of this linear function. Use a suitable domain.

g. What is the slope? What does this number represent? What is the significance that the slope is negative?

☐ (5) **Maximum, Minimum, Domain, and Range**

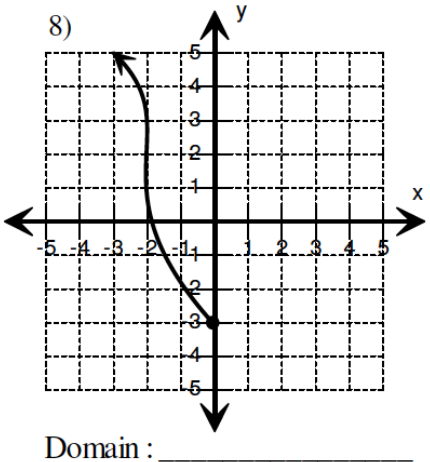
7)



Domain : _____

Range : _____

8)



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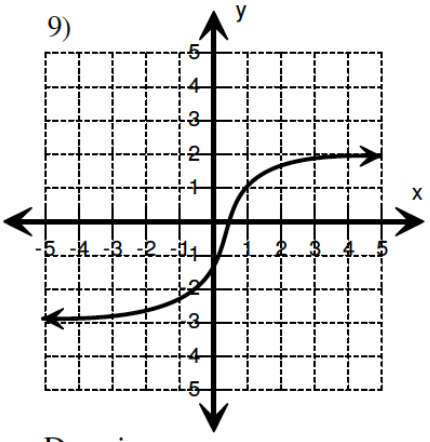
9)



Domain : _____

Range : _____

☐ (6) **Exit Ticket**

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☐ (7) **Homework**

(1) Organize unit packet (see back of this page for an example unit)
(2) Finish this review
(3) Review old lessons

☐ (7) **Unit Packet**