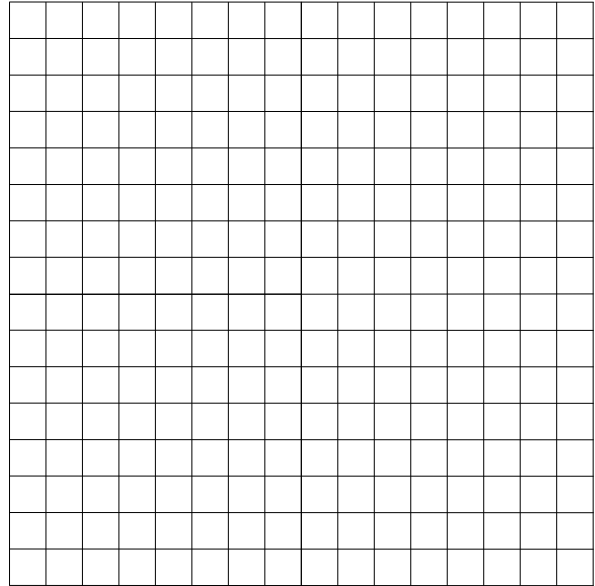# Algebra I   Worksheet #7   Unit 8   page 1   _____

Bill has a part-time job. He can work up to 20 hours a week. He gets paid $9.00 per hour. Let t represent the number of hours he works. Let P(t) represent his total pay.

1. Make a table giving t and P(t) every 4 hours from t = 0 to t = 20.

2. Graph function P.

3. Write an equation giving P(t) in terms of t.   _____

4. Write an inequality to describe the domain of function P.   _____

5. Write an inequality to describe the range of function P.   _____

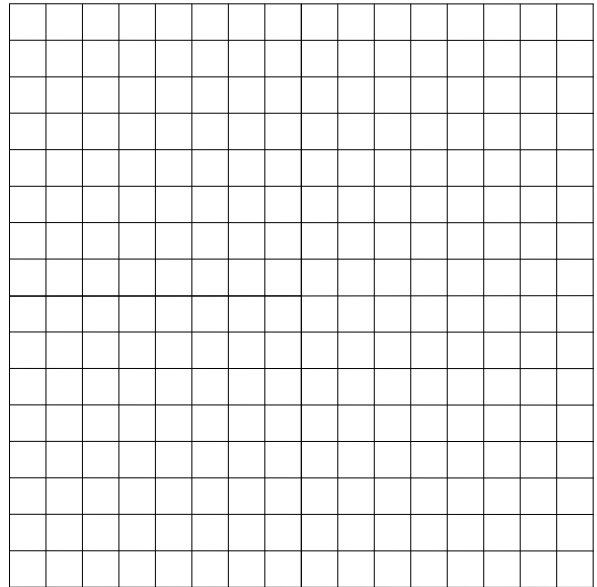6. Evaluate P(10). What does P(10) represent in terms of the problem?

7. If P(t) = 135, then find the value of t. Describe what this value of t represents in terms of the problem.

Paradise Island is 60 miles due west of Landmark Bay. A Ferry sails from Landmark Bay to Paradise Island at a constant speed of 10 miles per hour. Let t represent the time in **hours** that the Ferry has been sailing. Let D(t) represent the **distance in miles that the Ferry is from Paradise Island**.

8. Make a table giving t and D(t) every hour from t = 0 until the Ferry reaches Paradise Island.

9. Graph function D.

10. Write an equation giving D(t) in terms of t.   _____

11. Write an inequality to describe the domain of function D.   _____

12. Write an inequality to describe the range of function D.   _____

13. Evaluate D(4.5). What does D(4.5) represent in terms of the problem?

14. If D(t) = 35, then find the value of t. Describe what this value of t represents in terms of the problem.