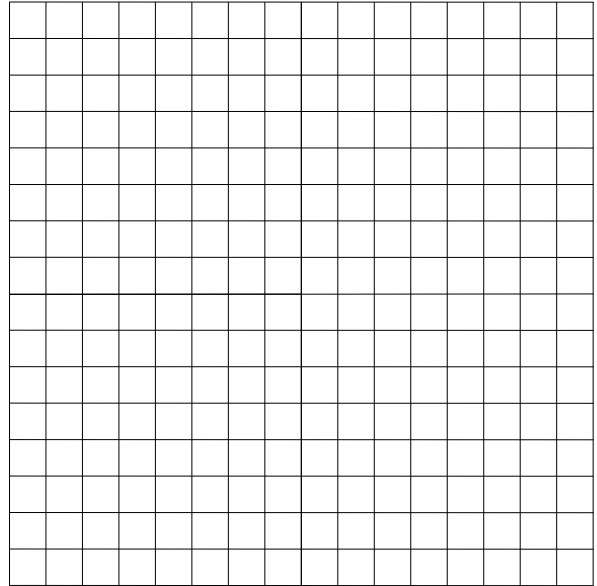


**Algebra I Class Worksheet #4 Unit 8 page 1** \_\_\_\_\_

Tom has a part-time job. He can work up to 20 hours a week. He gets paid \$8.00 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  $P(8)$ . What does  $P(8)$  represent in terms of the problem?

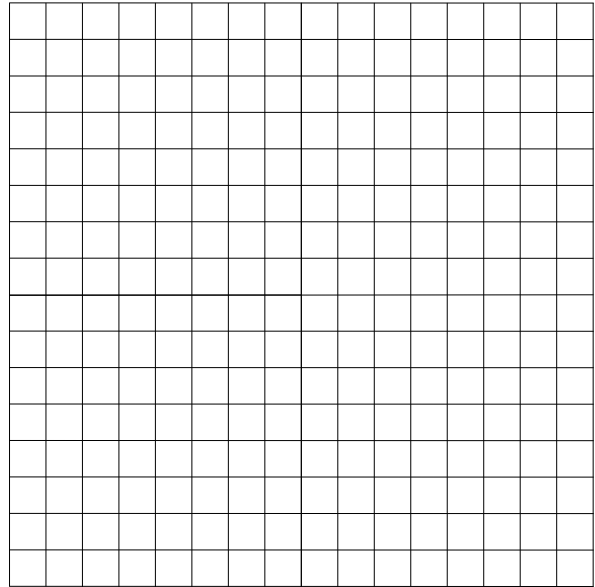
7. If  $P(t) = 28$ , then find the value of  $t$ . Describe what this value of  $t$  represents in terms of the problem.

## Algebra I Class Worksheet #4 Unit 8 page 2

Bird Island is 30 miles due south of Blue Fin Bay. A Ferry sails from Blue Fin Bay to Bird Island at a constant speed of 12 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 Bird Island**.

8. Make a table giving  $t$  and  $D(t)$  every half hour from  $t = 0$  until the Ferry reaches Bird 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  $D(1)$ . What does  $D(1)$  represent in terms of the problem?

14. If  $D(t) = 15$ , then find the value of  $t$ . Describe what this value of  $t$  represents in terms of the problem.