

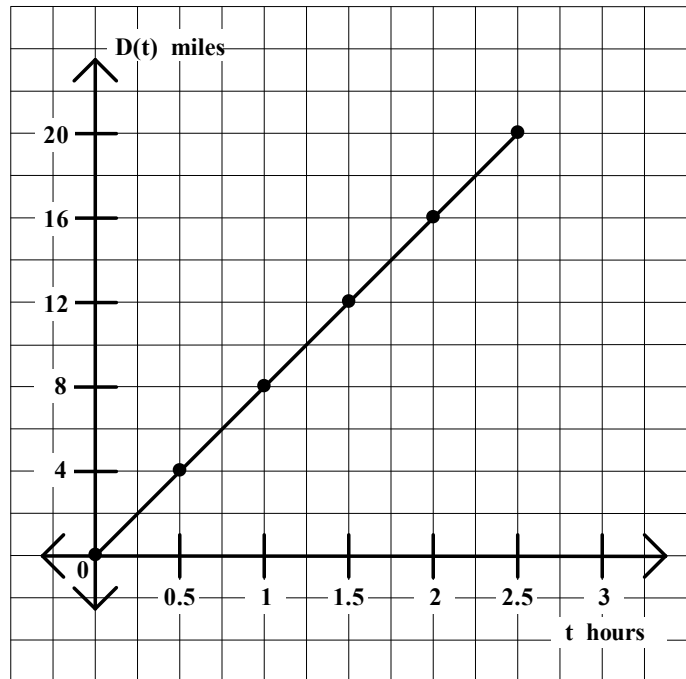
## General Algebra II Worksheet #4 Unit 6 Selected Solutions

Mary bikes for 2.5 hours at a constant speed of 8 miles per hour. Let  $t$  represent her biking time (in hours) and  $D(t)$  represent the distance she has gone (in miles). Answer each of the following. Show your process neatly organized.

22. Make a table giving  $t$  and  $D(t)$  every half hour from  $t = 0$  to  $t = 2.5$ .

$t$	$D(t)$
0	0
0.5	4
1	8
1.5	12
2	16
2.5	20

23. Graph function  $D$ .



24. Write an equation giving  $D(t)$  in terms of  $t$ .  $D(t) = 8t$

25. What is the domain of function  $D$ ?

$[0, 2.5]$

26. What is the range of function  $D$ ?

$[0, 20]$

27. Evaluate  $D(1.2)$ . What does  $D(1.2)$  represent in terms of the problem?

$D(1.2) = 9.6$  miles.  $D(1.2)$  represents the distance Mary bikes in 1.2 hours.

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

$t = 1.75$  hours. This value of  $t$  represents the time it takes Mary to bike 14 miles.