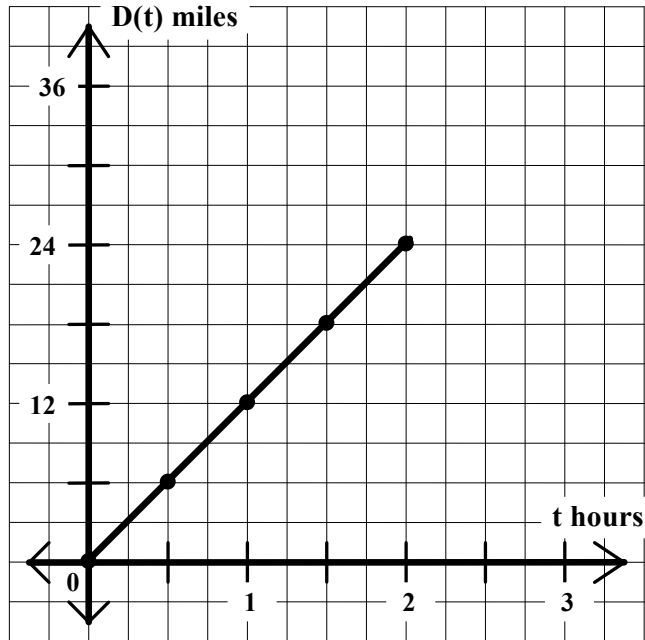# Algebra II   Worksheet #3   Unit 3   Selected Solutions

Harry bikes for 2 hours at a constant speed of 12 miles per hour. Let t represent his biking time (in **hours)** and D(t) represent the distance he has gone (in **miles)**. Answer each of the following. Show your process neatly organized.

8. Make a table giving t and D(t) every half hour from t = 0 to t = 2.

t	D(t)
0	0
0.5	6
1	12
1.5	18
2	24

9. Graph function D.

10. Write an equation giving D(t) in terms of t.   __**D(t) = 12t**__

11. What is the domain of function D?

__[0, 2]__

12. What is the range of function D?

__[0, 24]__

13. Evaluate D(0.75). What does D(0.75) represent in terms of the problem?

D(0.75) = 9 miles. D(0.75) represents the distance Harry bikes in 0.75 hours.

14. If D(t) = 18, then find the value of t. Describe what this value of t represents in terms of the problem.

t = 1.5 hours. This value of t represents the time it takes Harry to bike 18 miles.