 Name_____

Constant Rate Equations

Date_____ Period____

Solve each problem.

1) A train travels 4 miles in 3 minutes at a constant speed. To determine the distance traveled (d) at that speed for different amounts of time (t), write an equation with t as the independent variable and d and the dependent variable. Then, use the equation to determine how far the train will travel in 15 minutes.

2) A high-speed train travels 7 miles in 3 minutes at a constant speed. To determine the amount of time (t) it takes to travel different distances (d) at that speed, write an equation with d as the independent variable and t and the dependent variable. Then, use the equation to determine how long will it take for the high-speed train to travel 28 miles.

3) A car travels 7 miles in 6 minutes at a constant speed. To determine the distance traveled (d) at that speed for different amounts of time (t), write an equation with t as the independent variable and d and the dependent variable. Then, use the equation to complete the table.

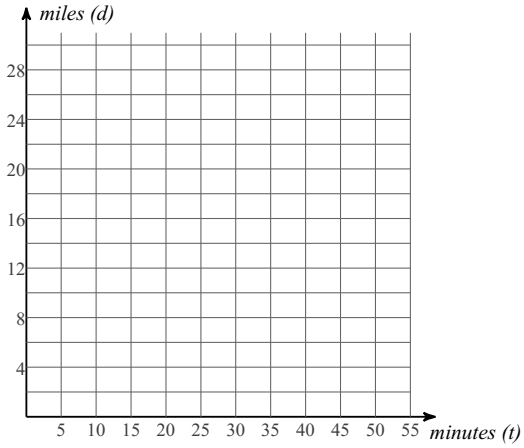
minutes (t)	miles (d)
6	7
12	
18	
24	
30	
36	

4) A high-speed train travels 9 miles in 5 minutes at a constant speed. To determine the amount of time (t) it takes to travel different distances (d) at that speed, write an equation with d as the independent variable and t and the dependent variable. Then, use the equation to complete the table.

miles (d)	minutes (t)
9	5
18	
27	
36	
45	
54	

5) A trolley travels 15 miles in 27 minutes at a constant speed. To determine the distance traveled (d) at that speed for different amounts of time (t), write an equation with t as the independent variable and d and the dependent variable. Then, use the equation to complete the table and plot the points on the graph.

minutes (t)	miles (d)
9	
18	
27	15
36	
45	
54	



 Name_____

Constant Rate Equations

Date_____ Period____

Solve each problem.

1) A train travels 4 miles in 3 minutes at a constant speed. To determine the distance traveled (d) at that speed for different amounts of time (t), write an equation with t as the independent variable and d and the dependent variable. Then, use the equation to determine how far the train will travel in 15 minutes.

$d = \frac{4}{3}t$

20 miles

2) A high-speed train travels 7 miles in 3 minutes at a constant speed. To determine the amount of time (t) it takes to travel different distances (d) at that speed, write an equation with d as the independent variable and t and the dependent variable. Then, use the equation to determine how long will it take for the high-speed train to travel 28 miles.

$t = \frac{3}{7}d$

12 minutes

3) A car travels 7 miles in 6 minutes at a constant speed. To determine the distance traveled (d) at that speed for different amounts of time (t), write an equation with t as the independent variable and d and the dependent variable. Then, use the equation to complete the table.

$d = \frac{7}{6}t$

minutes (t)	miles (d)
6	7
12	14
18	21
24	28
30	35
36	42

4) A high-speed train travels 9 miles in 5 minutes at a constant speed. To determine the amount of time (t) it takes to travel different distances (d) at that speed, write an equation with d as the independent variable and t and the dependent variable. Then, use the equation to complete the table.

$t = \frac{5}{9}d$

miles (d)	minutes (t)
9	5
18	10
27	15
36	20
45	25
54	30

5) A trolley travels 15 miles in 27 minutes at a constant speed. To determine the distance traveled (d) at that speed for different amounts of time (t), write an equation with t as the independent variable and d and the dependent variable. Then, use the equation to complete the table and plot the points on the graph.

$d = \frac{5}{9}t$

minutes (t)	miles (d)
9	5
18	10
27	15
36	20
45	25
54	30