Name: Date:

Period:

Verbal Descriptions to Direct-Variation Equations y = kx

Scenario 1: Car Distance

Define D and t; write D = kt; solve for k; find D when t = 5.

Define variables in words	
General equation	
Substitute known values	
Solve for k	
Final equation	
Distance in 5 hours (miles)	

Verbal Descriptions to Direct-Variation Equations y = kx

Scenario 2: Notebook Cost

Define C and n; write C = kn; solve for k; find C when n = 7.

Define variables in words	
General equation	
Substitute known values	
Solve for k	
Final equation	
Cost of 7 notebooks (dollars)	

Verbal Descriptions to Direct-Variation Equations y = kx

Scenario 3: Shower Water

Define W and m; write W = km; solve for k; find W when m = 9.

Define variables in words	
General equation	
Substitute known values	
Solve for k	
Final equation	
Water in 9 minutes (gallons)	

Verbal Descriptions to Direct-Variation Equations y = kx

Scenario 4: Printer Pages

Define P and t; write P = kt; solve for k; find t when P = 120.

Define variables in words	
General equation	
Substitute known values	
Solve for k	
Final equation	
Minutes to print 120 pages (minutes)	

Verbal Descriptions to Direct-Variation Equations y = kx

Scenario 5: Recipe Flour and Sugar

Define F and S; write F = kS; solve for k; find F when S = 5.

Define variables in words	
General equation	
Substitute known values	
Solve for k	
Final equation	
Flour for 5 cups sugar (cups)	

Verbal Descriptions to Direct-Variation Equations y = kx

Scenario 6: Hourly Earnings

Rate given directly: earns $15 per hour. Define y and x; write y = 15x; find earnings for 8 hours.

Define variables in words	
General equation	
Value of k (rate) (dollars per hou)	
Final equation	
Earnings for 8 hours (dollars)	

Verbal Descriptions to Direct-Variation Equations y = kx

Original tasks 1, 2, 3 / blank responses

Task 1

The distance D a car travels varies directly as the time t in hours. In 3 hours, the car travels 150 miles. Write the equation relating D and t, and find the distance traveled in 5 hours.

Task 2

The cost C of buying n notebooks varies directly as the number of notebooks. If 4 notebooks cost $10, write the equation and find the cost of 7 notebooks.

Task 3

The amount of water W in gallons used by a shower varies directly as the number of minutes m. A 6-minute shower uses 12 gallons. Write the equation and find the water used in a 9-minute shower.

Verbal Descriptions to Direct-Variation Equations y = kx

Original tasks 4 / blank responses

Task 4

The number of pages P printed varies directly as the number of minutes t. A printer prints 45 pages in 3 minutes. Write the equation and find how many minutes it takes to print 120 pages.