 Name_____

Equivalent Ratio Equations

Date_____ Period____

Solve each problem.

1) Mixing 5 cans of blue paint (*b*) with 1 can of red paint (*r*) makes a nice shade of purple paint. To help make the same shade of purple with different amounts of paint, write an equation with *b* as the independent variable and *r* as the dependent variable. Then, use the equation to determine how many cans of red paint must be mixed with 15 cans of blue paint to make the same shade of purple.

2) A recipe for a batch of cupcakes calls for 5 cups of milk (*m*) and 3 tablespoons of vegetable oil (*v*). To help make different sized batches with the same ratio, write an equation with *m* as the independent variable and *v* as the dependent variable. Then, use the equation to determine how many tablespoons of vegetable oil must be added if 10 cups of milk are used.

3) Mixing 1 can of red paint (*r*) with 2 cans of yellow paint (*y*) makes a nice shade of orange paint. To help make the same shade of orange with different amounts of paint, write an equation with *r* as the independent variable and *y* as the dependent variable. Then, use the equation to complete the table.

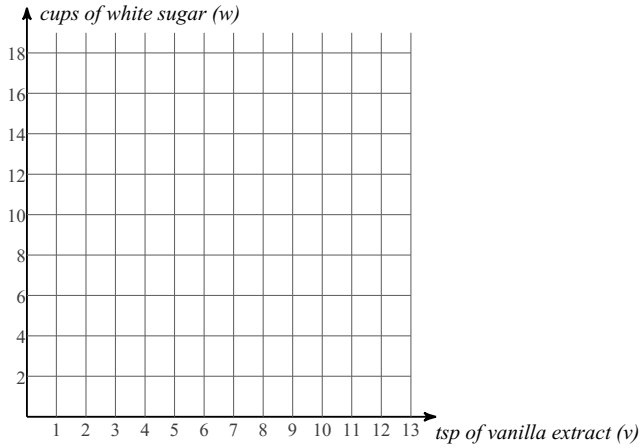
cans of red paint (r)	cans of yellow paint (y)
1	2
2	
3	
4	
5	
6	

4) A recipe for a batch of chocolate chip cookies calls for 7 cups of white sugar (w) and 4 cups of butter (b). To help make different sized batches with the same ratio, write an equation with w as the independent variable and b as the dependent variable. Then, use the equation to complete the table.

cups of white sugar (w)	cups of butter (b)
7	4
14	
21	
28	
35	
42	

5) A recipe for a batch of cupcakes calls for 12 teaspoons of vanilla extract (v) and 18 cups of white sugar (w). To help make different sized batches with the same ratio, write an equation with v as the independent variable and w as the dependent variable. Then, use the equation to complete the table. Then, plot the points on the graph.

tsp of vanilla extract (v)	cups of white sugar (w)
2	
4	
6	
8	
10	
12	18



Kuta Software - Infinite Grade 6 Math Name_____

Equivalent Ratio Equations

Date_____ Period____

Solve each problem.

1) Mixing 5 cans of blue paint (b) with 1 can of red paint (r) makes a nice shade of purple paint. To help make the same shade of purple with different amounts of paint, write an equation with b as the independent variable and r as the dependent variable. Then, use the equation to determine how many cans of red paint must be mixed with 15 cans of blue paint to make the same shade of purple.

$r = \frac{1}{5}b$

3 cans of red paint

2) A recipe for a batch of cupcakes calls for 5 cups of milk (m) and 3 tablespoons of vegetable oil (v). To help make different sized batches with the same ratio, write an equation with m as the independent variable and v as the dependent variable. Then, use the equation to determine how many tablespoons of vegetable oil must be added if 10 cups of milk are used.

$v = \frac{3}{5}m$

6 tablespoons of vegetable oil

3) Mixing 1 can of red paint (r) with 2 cans of yellow paint (y) makes a nice shade of orange paint. To help make the same shade of orange with different amounts of paint, write an equation with r as the independent variable and y as the dependent variable. Then, use the equation to complete the table.

$y = 2r$

cans of red paint (r)	cans of yellow paint (y)
1	2
2	4
3	6
4	8
5	10
6	12

4) A recipe for a batch of chocolate chip cookies calls for 7 cups of white sugar (w) and 4 cups of butter (b). To help make different sized batches with the same ratio, write an equation with w as the independent variable and b as the dependent variable. Then, use the equation to complete the table.

$b = \frac{4}{7}w$

cups of white sugar (w)	cups of butter (b)
7	4
14	8
21	12
28	16
35	20
42	24

5) A recipe for a batch of cupcakes calls for 12 teaspoons of vanilla extract (v) and 18 cups of white sugar (w). To help make different sized batches with the same ratio, write an equation with v as the independent variable and w as the dependent variable. Then, use the equation to complete the table. Then, plot the points on the graph.

$w = \frac{3}{2}v$

tsp of vanilla extract (v)	cups of white sugar (w)
2	3
4	6
6	9
8	12
10	15
12	18