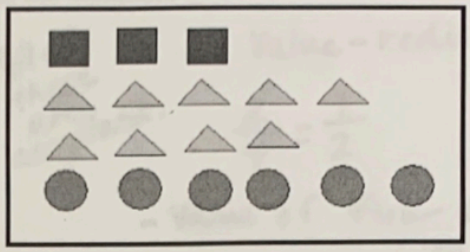
Name _____

Ratio Quiz - Review

Write the following ratios in three different ways.



1) Squares to triangles

$\frac{3}{9}$ 3 to 9 3:9

2) Triangles to circles

$\frac{9}{6}$ 9 to 6 9:6

3) Circles to squares

$\frac{6}{3}$ 6 to 3 6:3

4) Triangles to total shapes

$\frac{9}{18}$ 9 to 18 9:18

Write 2 equivalent ratios for each of the following using either division or multiplication.

1) 4:6

$\frac{4}{6} \div \frac{2}{2} = \frac{2}{3}$

$\frac{4}{6} \times \frac{10}{10} = \frac{40}{60}$

2) 12:16

$\frac{12}{16} \div \frac{2}{2} = \frac{6}{8}$

$\frac{12}{16} \div \frac{4}{4} = \frac{3}{4}$

$\frac{12}{16} \times \frac{10}{10} = \frac{120}{160}$

3) 16:20

$\frac{16}{20} \div \frac{2}{2} = \frac{8}{10}$

$\frac{16}{20} \div \frac{4}{4} = \frac{4}{5}$

$\frac{16}{20} \times \frac{2}{2} = \frac{32}{40}$

4) 15:10

$\frac{15}{10} \div \frac{5}{5} = \frac{3}{2}$

$\frac{15}{10} \times \frac{2}{2} = \frac{30}{20}$

Write the value of each ratio. (Remember that "value" means the ratio written in the simplest form.)

1) 10 to 16

$\frac{10}{16} \div \frac{2}{2} = \frac{5}{8}$

2) 24:14

$\frac{24}{14} \div \frac{2}{2} = \frac{12}{7}$

3) $\frac{5}{20}$

$\frac{5}{20} \div \frac{5}{5} = \frac{1}{4}$

4) 7:28

$\frac{7}{28} \div \frac{7}{7} = \frac{1}{4}$

Complete the following ratio tables.

Taxis	6	18	36
Buses	5	15	30

(×3 from 6 to 18; ×6 from 6 to 36; ×3 from 5 to 15; ×6 from 5 to 30)

	5	15	20	10
	15	45	60	30

(×3 from 5 to 15; ×3 from 15 to 45; ÷3 from 60 to 20; ×3 from 20 to 60; ÷3 from 10 to 30; ×3 from 10 to 30)

A certain recipe calls for 4 eggs to 2 pounds of flour. Complete a ratio table using this information. Write the value of the ratio table and the equation.

x Flour	y Eggs
2	4
3	6
4	8
5	10

$x \cdot 2 = y$

$y = 2x$
$y = 2 \cdot x$
$x \cdot 2 = y$
$2x = y$

All of these are acceptable.

Value - reduce!

$\frac{2}{4} = \frac{1}{2}$

- Value of flour to eggs 1 to 2
- Value of eggs to flour 2 to 1.

Tell whether each pair of ratios are equal.

1) 4:6 and 20 to 30

120 120
4 20
6 30

Equal!

2) 14 to 7 and 15:5

$\frac{14}{7} \quad \frac{15}{5}$

$\frac{2}{1} \neq \frac{3}{1}$

Not Equal!

3) $\frac{3}{6}$ *and* 10 *to* 20

60 60
3 10
6 20

Equal!

Spiral Review

1) $3\frac{1}{2} + 4\frac{5}{6}$

$3\frac{1}{2} \times \frac{3}{3} = 3\frac{3}{6}$

$+ 4\frac{5}{6} \quad = 4\frac{5}{6}$

$7\frac{8}{6}$

$= 8\frac{2}{6} = 8\frac{1}{3}$

2) $(9 \div 3)^2 + 2^3$

$(3)^2 + 2^3$

$9 + 8$

$= 17$

$3^2 = 3 \cdot 3 = 9$

$2^3 = 2 \cdot 2 \cdot 2 = 8$

3) $7\frac{1}{2} \div 1\frac{2}{3}$

$\frac{15}{2} \div \frac{5}{3}$

Keep Switch Flip

$\frac{15}{2} \times \frac{3}{5_1} = \frac{9}{2}$

$\frac{9}{2} = 4\frac{1}{2}$

4) $52.2 \div .6$

$.6\overline{)52.2}$

87

$6\overline{)522}$

-48

42

-42

0

$= 87$

Review – Tables and Graphing Proportional Relationships

1) Jake records how much he makes for different numbers of cars he parks. Complete the table and then graph the linear equation.

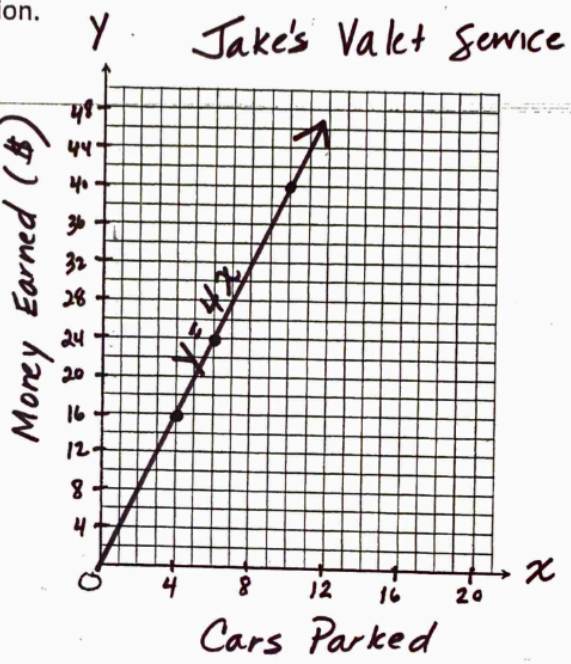
x Cars Parked	y $ Earned
4	16
6	24
10	40
16	64

Reduce!

Value of money earned to cars parked: 16 to 4 → 4 to 1 → $\frac{4}{1}$ or 4:1

Equation: $y = 4x$

$y = 4x$



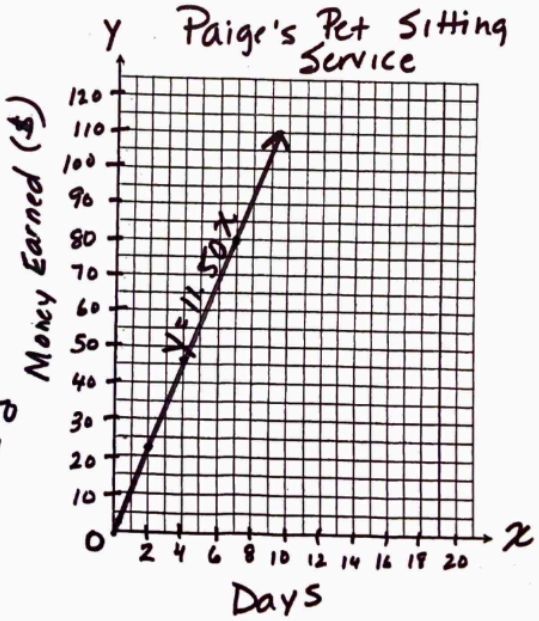
2) Paige pet sits every weekend to earn extra spending money. She earns $11.50 per day. Complete the table.

Days	$ Earned
2	$23
4	$46
7	$80.50
13	$149.50
27	$310.50

How much does she earn after working a week? $80.50 (7 days!)

If she earns $46, how long did she work? 4 ~~hours~~ Days

$y = 11.50x$

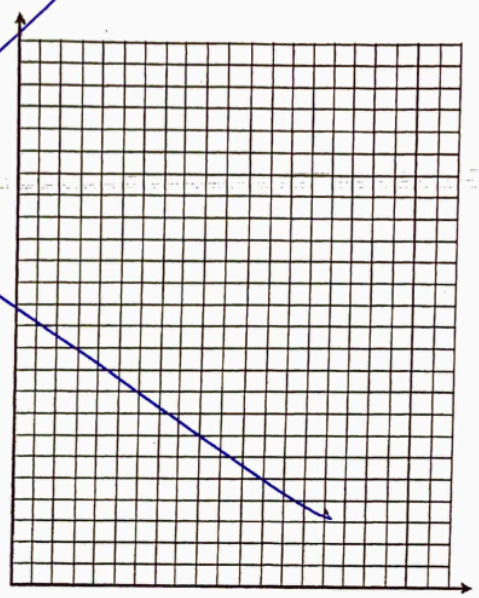


9)

Input	1	2	3	4	5
Output	5	8	11	14	17

Equation: _____

Value of input to total_____



Spiral Review

10) 14 ÷ 7 + 8 (3) = 26

11) 2(6 + 4) - 3 x 5 = 5

12) 18 (24 + 36) = 1080

13) Compare: 8.041 > 8.04 (<, > or =)

14) Find the product of 12.85 and 2.3 29.555

15) 4,320 is divisible by what numbers? Circle all that apply.

2 3 4 5 6 9 10

16) For every three chips John eats, Lucy eats one. If John eats 24, then how many did they eat in total? 32 (Don't forget...you have to find out how many Lucy had first!)

17) Which is the better buy? 12 rolls of paper towel for $15 or 8 rolls for $10.40?

Not on the test but try it!