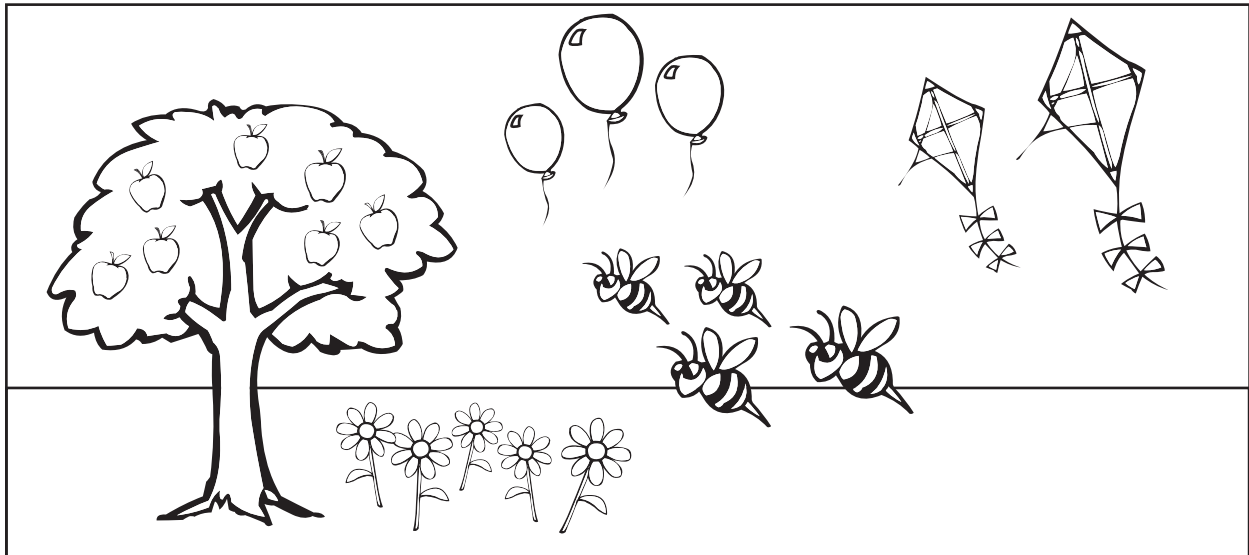**Math Antics**®
Worksheets

Name: _____

Date: _____

What Ratio Is It?

Instructions: Below you will be asked to find the ratios between various objects in this diagram.

What is the ratio of...

1 Bees to Balloons?

$4 : 3$ or $\dfrac{4}{3}$

2 Flowers to Apples?

$5 : 7$ or $\dfrac{5}{7}$

3 Trees to Flowers?

$1 : 5$ or $\dfrac{1}{5}$

4 Bees to Flowers?

$4 : 5$ or $\dfrac{4}{5}$

5 Kites to Bees?

$2 : 4$ or $\dfrac{2}{4}$

6 Balloons to Trees?

$3 : 1$ or $\dfrac{3}{1}$

7 Kites to Apples?

$2 : 7$ or $\dfrac{2}{7}$

8 Apples to Bees?

$7 : 4$ or $\dfrac{7}{4}$

9 Trees to Apples?

$1 : 7$ or $\dfrac{1}{7}$

10 Kites to Balloons?

$2 : 3$ or $\dfrac{2}{3}$

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Math Antics® Worksheets

Converting to a Unit Rate

Instructions: Convert each of these rates into a unit rate by dividing the top number by the bottom number. Don't forget the units!

1 $\dfrac{120 \text{ miles}}{6 \text{ hours}} = \dfrac{20 \text{ miles}}{1 \text{ hour}}$

$120 \div 6 = 20$

2 $\dfrac{36 \text{ push-ups}}{2 \text{ minutes}} = \dfrac{18 \text{ push-ups}}{1 \text{ minute}}$

$36 \div 2 = 18$

3 $\dfrac{45 \text{ dollars}}{3 \text{ hours}} = \dfrac{15 \text{ dollars}}{1 \text{ hour}}$

$45 \div 3 = 15$

4 $\dfrac{250 \text{ km}}{5 \text{ hours}} = \dfrac{50 \text{ km}}{1 \text{ hour}}$

$250 \div 5 = 50$

5 $\dfrac{180 \text{ cakes}}{6 \text{ days}} = \dfrac{30 \text{ cakes}}{1 \text{ day}}$

$180 \div 6 = 30$

6 $\dfrac{24 \text{ games}}{12 \text{ days}} = \dfrac{2 \text{ games}}{1 \text{ day}}$

$24 \div 12 = 2$

7 $\dfrac{100 \text{ meters}}{10 \text{ second}} = \dfrac{10 \text{ meters}}{1 \text{ second}}$

$100 \div 10 = 10$

8 $\dfrac{18 \text{ apples}}{9 \text{ days}} = \dfrac{2 \text{ apples}}{1 \text{ day}}$

$18 \div 9 = 2$

9 $\dfrac{25 \text{ km}}{10 \text{ hours}} = \dfrac{2.5 \text{ km}}{1 \text{ hour}}$

$25 \div 10 = 2.5$

10 $\dfrac{15 \text{ pies}}{2 \text{ days}} = \dfrac{7.5 \text{ pies}}{1 \text{ day}}$

$15 \div 2 = 7.5$

Using Unit Rates to Compare

Instructions: Use unit rates to solve the following word problems.

1 Tom and Paul are building a brick wall. Tom lays 420 bricks in 6 hours. Paul lays 240 bricks in 3 hours. Whose rate is faster?

Tom's Rate

$$\frac{420}{6} = \frac{70}{1} \text{ bricks hour}$$

Paul's Rate

$$\frac{240}{3} = \frac{80}{1} \text{ bricks hour}$$

70 < 80 so
Paul's rate is faster.

2 Kim and Ben are planting a garden. Kim plants 24 flowers in 2 hours. Ben plants 33 flowers in 3 hours. Whose rate is faster?

Kim's Rate

$$\frac{24}{2} = \frac{12}{1} \text{ flowers hour}$$

Ben's Rate

$$\frac{33}{3} = \frac{11}{1} \text{ flowers hour}$$

12 > 11 so
Kim's rate is faster.

3 Ann's Bakery bakes 450 loaves of bread in 3 days. Mark's Bakery bakes 560 loaves of bread in 4 days. Which bakery bakes bread at the faster rate?

Ann's Rate

$$\frac{450}{3} = \frac{150}{1} \text{ loaves day}$$

Mark's Rate

$$\frac{560}{4} = \frac{140}{1} \text{ loaves day}$$

150 > 140 so
Ann's rate is faster.

4 Dave and Eric are painting a long fence. Dave paints 125 feet of the fence in 5 hours. Eric paints 175 feet in 7 hours. Whose rate is faster?

Dave's Rate

$$\frac{125}{5} = \frac{25}{1} \text{ feet hour}$$

Eric's Rate

$$\frac{175}{7} = \frac{25}{1} \text{ feet hour}$$

25 = 25 so
Their rates are the same!

5 A bear can run 400 feet in 8 seconds. A horse can run 290 feet in 5 seconds? Which animal runs at the faster rate?

Bear's Rate

$$\frac{400}{8} = \frac{50}{1} \text{ feet sec}$$

Horse's Rate

$$\frac{290}{5} = \frac{58}{1} \text{ feet sec}$$

50 < 58 so
The horse's rate is faster.

6 Sam earned $380 working for 8 hours. Rich earned $195 working for 4 hours. Who has the higher rate of pay?

Sam's Rate

$$\frac{380}{8} = \frac{\$47.5}{1 \text{ hour}}$$

Rich's Rate

$$\frac{195}{4} = \frac{\$48.75}{1 \text{ hour}}$$

$47.50 < $48.75 so
Rich's rate is higher!