

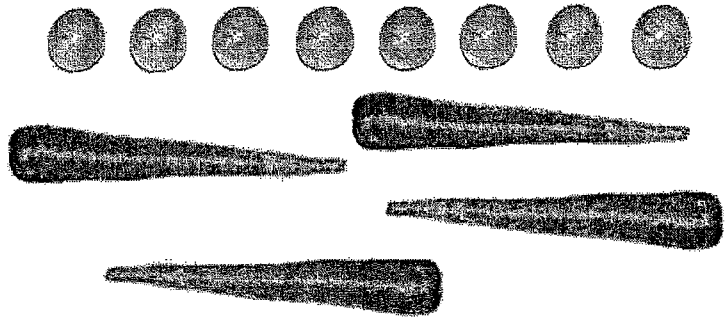
“We go together like peas and carrots.” – *Forrest Gump*

A ratio makes a comparison.

Forrest has 4 carrots and 8 peas.

You can write the ratio of carrots to peas in three different ways:

| | | |
|--------|-----|---------------|
| 4 to 8 | 4:8 | $\frac{4}{8}$ |
|--------|-----|---------------|



The ratio of peas to carrots is 8 to 4, 8:4, or $\frac{8}{4}$.

You can write a ratio in simplest form the same way you write a fraction in simplest form. The ratio of carrots to peas in simplest form is:

| | | |
|--------|-----|---------------|
| 1 to 2 | 1:2 | $\frac{1}{2}$ |
|--------|-----|---------------|

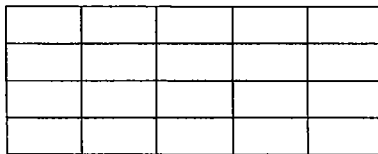
While not used as frequently, a ratio can compare more than two items. If there are 3 cakes, 4 cookies, and 5 brownies, you can write this ratio as 3:4:5.

For each phrase circle the answer that expresses the ratio in simplest form.

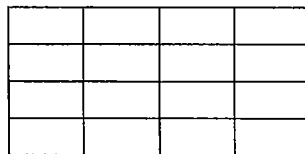
- 75 hamburgers to 90 French fries 75:90 5:6 90:15
- 4 apples to 52 oranges 48:4 4:52 1:13

Create a drawing below which represents a ratio of 3 clams to 9 shrimp. You may not draw exactly 3 clams.

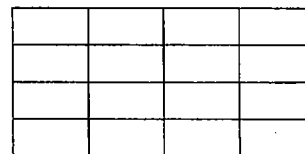
Place X's in the grids below so that they form the following ratios.



1 x to 5 small rectangles



2 x's to 4 small rectangles



1 x to 1 small rectangle

A rate is a ratio that compares quantities that are measured in different units.
 A unit rate compares a quantity to one unit of another quantity.

Example: Ms. Johnsen can cook 135 cookies in 5 hours.

Expressed as a rate: $\frac{135 \text{ cookies}}{5 \text{ hours}}$

Expressed as a unit rate: $\frac{135 \text{ cookies}}{5 \text{ hours}} = \frac{27 \text{ cookies}}{1 \text{ hour}}$

Ratios: Express each ratio in simplest form in one of the three ways.

| | | | | | |
|--|---------------------------|--|-----|--|--|
| Within 20km of Mr. Aeckersberg's house there are: 31 McDonalds, 14 Burger Kings, 10 Wendy's, 12 KFC's | | | | | |
| 1. | McDonalds to BKs | | 2. | Wendys to McDonalds | |
| 3. | KFCs to BKs | | 4. | All 4 to McDonalds | |
| 5. | BKs to McDonalds and KFCs | | 6. | Wendys and KFCs to BKs | |
| 7. | All 4 to The Top 3 | | 8. | The Top 2 to All 4 | |
| 9. | BKs to The Top 2 | | 10. | All 4 to McDonalds, Burger Kings, Wendys, and KFCs | |

Rates and Unit Rates: Express each rate as a unit rate.

| | Rate | Unit Rate | | Rate | Unit Rate |
|-----|--|-----------|-----|---|-----------|
| 11. | $\frac{105 \text{ peas}}{3 \text{ minutes}}$ | | 12. | $\frac{\$38}{2 \text{ steaks}}$ | |
| 13. | $\frac{2800 \text{ calories}}{7 \text{ days}}$ | | 14. | $\frac{72 \text{ Little Debbies}}{24 \text{ wrappers}}$ | |
| 15. | $\frac{\$375}{5 \text{ days at Kroger}}$ | | 16. | $\frac{\$315}{15 \text{ hamburgers}}$ | |

| | | |
|-----|--|--|
| 17. | The ratio of females to males in the restaurant is 6 to 5. If four females and six males leave, the ratio is 10 to 7. How many customers originally are in the restaurant? | |
|-----|--|--|

Using the letters of the phrase "LEMON LOLLIPOP," write the ratios comparing the numbers of letters. Simplify.

| | | | | | | | | |
|-----|--------|--|-----|----------------------|--|-----|--------|--|
| 18. | L to I | | 19. | I to O | | 20. | P to L | |
| 21. | E to M | | 22. | O to L | | 23. | P to E | |
| 24. | I to N | | 25. | vowels to consonants | | | | |

Activity 6-2: Ratio Tables

Name: _____

Complete each ratio table.

1.

| | | | | | |
|-------------------------|---|----|----|---|----|
| Pounds of peanut butter | 5 | 10 | 15 | | 50 |
| Pounds of jelly | 1 | 2 | | 5 | |

2.

| | | | | | |
|--------------------|--------|--------|--------|--------|----|
| Cost | \$0.50 | \$1.00 | \$2.00 | \$8.00 | |
| Pounds of macaroni | 1 | 2 | | | 12 |

3.

| | | | | | |
|-------------------|----|----|----|---|----|
| Pounds of lettuce | 12 | 24 | 60 | | |
| Pounds of tomato | 1 | 2 | | 8 | 10 |