Practice

1. Write each ratio 2 ways.

a) apples to pears

b) caps to scarves

c) roses to daisies

2. Write a ratio to show the numbers of:

a) ladybugs to ants

b) ants to ladybugs

c) ladybugs to insects

d) ants to insects

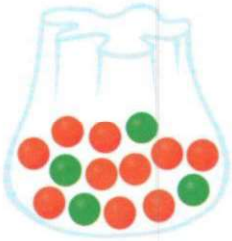
3. Write each ratio in as many ways as you can.

a) red marbles to green marbles

b) green marbles to all the marbles

c) green marbles to red marbles

d) red marbles to all the marbles



4. Ms. Zsabo has 13 girls and 11 boys in her class. Write each ratio.

a) girls to boys

b) boys to girls

c) boys to students

d) girls to students

5. What is being compared in each ratio?

a) 3 : 4

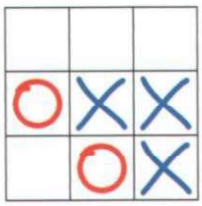
b) $\frac{4}{7}$

c) 3 to 7

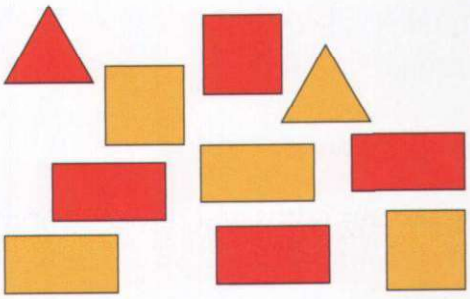
d) 4 : 3

6. Draw 2 diagrams to illustrate the ratio 3 : 5.
Explain each diagram.

7. Write 4 different ratios for this picture.
Explain what each ratio compares.



8. Write a ratio to show the numbers of:
   a) triangles to squares
   b) squares to rectangles
   c) triangles to all figures
   d) red figures to yellow figures
   e) yellow triangles to yellow rectangles
   f) red triangles to yellow squares



9. Write as many ratios as you can for the trail mix recipe.
Explain what each ratio compares.

TRAIL MIX
1 scoop raisins
3 scoops nuts
2 scoops dried papaya
1 scoop sunflower seeds

10. Describe how you would find the ratio of students to teachers in your school.

Reflect

Name the two types of ratios.
Give an example of each type.
Draw diagrams to illustrate your examples.

Numbers Every Day

Calculator Skills

Find two numbers with a sum of 12.2 and a product of 34.65.

➤ Ainsley paid \$0.95/min to make a long distance telephone call to her aunt in Scotland.
Ainsley's bill was \$11.40. How long did they talk?

Make a table.
Each minute cost \$0.95.
Keep adding \$0.95 for every minute.
Extend the table until you get to \$11.40.

Time (min)	1	2	3	4	5	6	7	8	9	10	11	12
Cost	\$0.95	\$1.90	\$2.85	\$3.80	\$4.75	\$5.70	\$6.65	\$7.60	\$8.55	\$9.50	\$10.45	\$11.40

Ainsley and her aunt talked for 12 min.

Practice

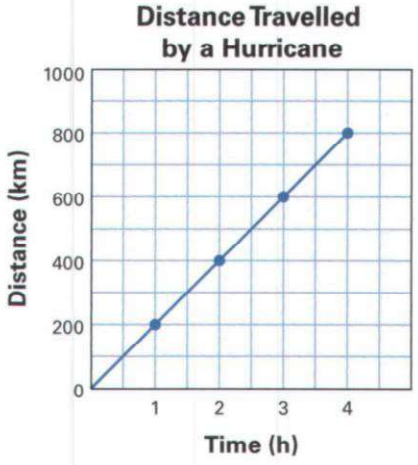
1. Write each amount as a rate.
- **a)** A fast reader can read 500 words every minute.
- **b)** Min did 13 chin-ups in 1 min.
- **c)** A cheetah can run 70 km in 1 h.
- **d)** When fighting a fire, a fire truck uses about 200 L of water every minute.

2. Mira rode her bicycle 20 km in 2 h.
At that rate, how far did Mira ride each hour? Each half hour?

3. Jasper made 4 bracelets in 1 h.
At this rate, how long would it take him to make 20 bracelets?

4. A train travels at an average speed of 80 km/h.
How long will it take the train to travel 320 km?

5. This graph shows how far a hurricane travelled in 4 h.
What was the hurricane's average speed in kilometres per hour?



This graph and the graph on page 329 are **continuous line graphs**.

6. Naja was paid $40 for 5 h of work.
How much would she earn if she worked for 8 h?

7. Gas costs $89/L.
Ali pays $18.69 to fill his gas tank.
Use a table.
How many litres of gas did Ali buy?

8. Kari checked her pulse and counted 21 beats in 15 s.
Draw a graph. At that rate, how many beats would Kari have counted in each time?

a) 30 s **b)** 45 s **c)** 1 min

9. A snail travels 12 m in 2 h.
At that rate, how long will it take the snail to travel 18 m?

10. Ken has 90 min of basketball practice every 3 days.

a) How many minutes of practice would Ken have in 6 days?

b) How many days would it take for Ken to put in 6 h of practice?

c) Can you assume that Ken has 30 min of practice every day? Explain.

11. Jacinthe does 60 chin-ups in 5 min.
Jamar does 20 chin-ups in 2 min.
Which person does more chin-ups every minute?
How do you know?

12. Express each bird's average speed in kilometres per hour.

a) An eagle flies 90 km in 2 h.

b) An owl flies 19 km in half an hour.

c) A spur-winged goose flies 9 km in 10 min.

Reflect

Give 3 examples of rates.
Explain what each rate means and tell when it would be used.

Numbers Every Day

Number Strategies

Replace ☐ with a number so the sum is divisible by 5 and by 11.

$3 + 7 + 17 + 10 + ☐$

How did you choose the number?