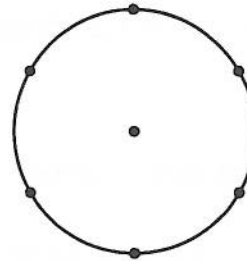
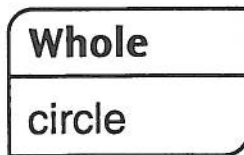


STUDY LINK
7.1

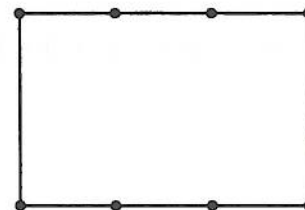
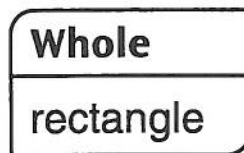
Fractions



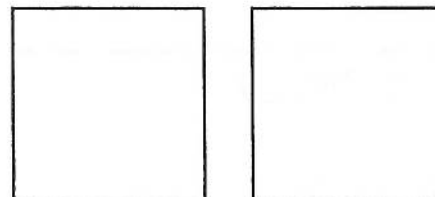
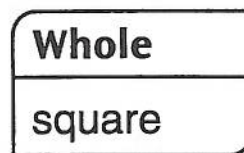
1. Divide the circle into 6 equal parts.
Color $\frac{5}{6}$ of the circle.



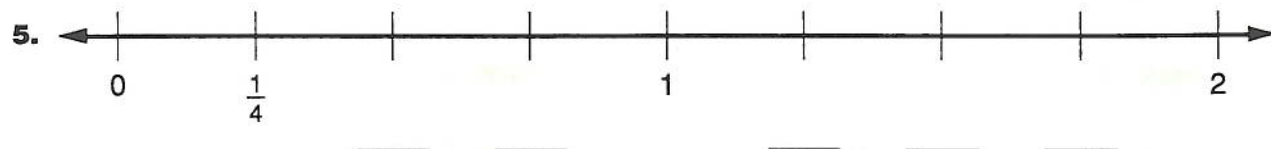
2. Divide the rectangle into 3 equal parts.
Shade $\frac{2}{3}$ of the rectangle.



3. Divide each square into fourths.
Color $1\frac{3}{4}$ of the squares.



Fill in the missing fractions and mixed numbers on the number lines.


Practice

6. $854 + 267 = \underline{\hspace{2cm}}$

7. $\underline{\hspace{2cm}} = 3,398 + 2,635$

8. $\underline{\hspace{2cm}} = 6,374 - 755$

9. $5,947 - 3,972 = \underline{\hspace{2cm}}$

STUDY LINK
7·2
“Fraction-of” Problems


1. Theresa had 24 cookies. She gave $\frac{1}{6}$ to her sister and $\frac{3}{6}$ to her mother.

Whole

- a. Fill in the “whole” box.
- b. How many cookies did she give to her sister? _____ cookies
- c. How many did she give to her mother? _____ cookies
- d. How many did she have left? _____ cookies

Solve.

2. $\frac{1}{3}$ of 18 = _____

3. $\frac{2}{3}$ of 18 = _____

4. $\frac{1}{5}$ of 35 = _____

5. $\frac{4}{5}$ of 35 = _____

6. $\frac{1}{4}$ of 40 = _____

7. $\frac{3}{4}$ of 40 = _____

Try This

8. $\frac{5}{8}$ of 16 = _____

9. $\frac{4}{9}$ of 27 = _____

10. $\frac{3}{5}$ of 20 = _____

11. What is $\frac{1}{4}$ of 10? _____ Explain. _____
- _____
- _____

Practice

12. $92 \div 4 =$ _____

13. $59 \div 3 =$ _____

14. _____ = $104 \div 8$

15. $9 \overline{)376} =$ _____

STUDY LINK
7•3

Color Tiles



There are 5 blue, 2 red, 1 yellow, and 2 green tiles in a bag.

- Without looking, Maren picks a tile from the bag. Which of these best describes her chances of picking a blue tile?
 - likely
 - 50-50 chance
 - unlikely
 - very unlikely
- Which of these best describes her chances of picking a yellow tile?
 - certain
 - likely
 - 50-50 chance
 - very unlikely

3. Find the probability of each event. Then make up an event and find the probability.

Event	Favorable Outcomes	Possible Outcomes	Probability
Pick a blue tile	5	10	$\frac{5}{10}$
Pick a red tile		10	$\frac{\square}{10}$
Pick a yellow tile		10	$\frac{\square}{10}$
Pick a green tile		10	$\frac{\square}{10}$
Pick a blue, red, or green tile		10	$\frac{\square}{10}$
		10	$\frac{\square}{10}$

4. Suppose you picked a color tile from the bag 10 times. After each pick, you put the tile back in the bag. How many times would you expect to pick a blue tile? _____ times

Try the experiment. Compare your prediction with the actual results.

Practice

5. $74 * 8 =$ _____

6. _____ = $4 * 987$

7. _____ = $65 * 26$

8. $35 * 462 =$ _____

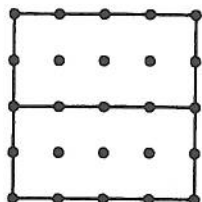
STUDY LINK
7.4

Dividing Squares

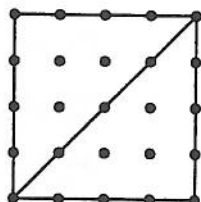


Use a straightedge and the dots below to help you divide each of the squares into equal parts.

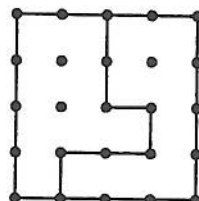
Example: Squares A, B, C, and D are each divided in half in a different way.



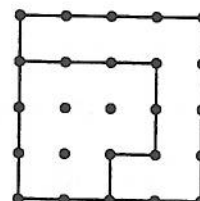
A



B

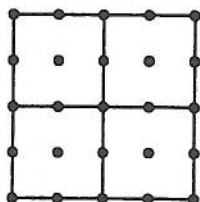


C

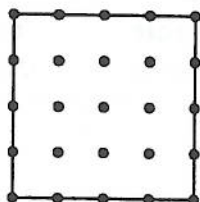


D

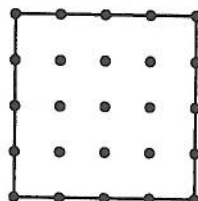
1. Square E is divided into fourths. Divide squares F, G, and H into fourths, each in a different way.



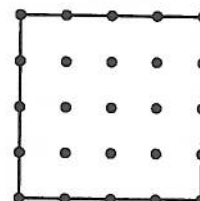
E



F



G

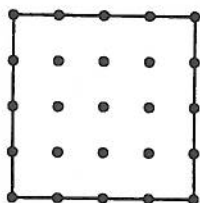


H

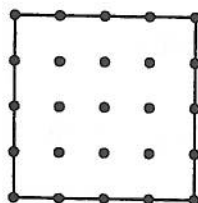
2. Square I is divided into eighths. Divide squares J, K, and L into eighths, each in a different way.



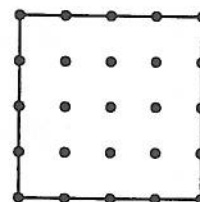
I



J



K



L

3. Rosa has 15 quarters and 10 nickels. She buys juice from a store for herself and her friends. The juice costs 35 cents per can. She gives the cashier $\frac{2}{3}$ of the quarters and $\frac{3}{5}$ of the nickels. The cashier does not give her any change.

How many cans of juice did she buy? _____ cans

Show your work on the back of this paper.

Practice

4. $0.636 + 0.245 =$ _____

5. _____ = $9.085 + 0.76$

6. _____ = $1.73 - 0.14$

7. $0.325 - 0.297 =$ _____

STUDY LINK
7•5

Fractions



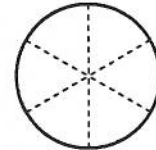
1. Jake has $\frac{3}{4}$ of a dollar. Maxwell has $\frac{1}{10}$ of a dollar.
Do they have more or less than \$1.00 in all? _____

Number model: _____

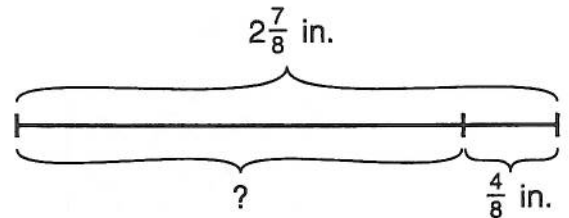
2. Jillian draws a line segment $2\frac{1}{4}$ inches long. Then she makes the line segment $1\frac{2}{4}$ inches longer. How long is the line segment now? _____ inches



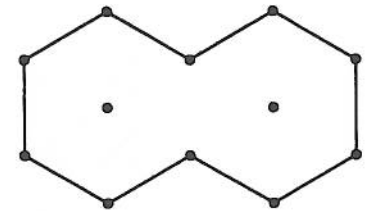
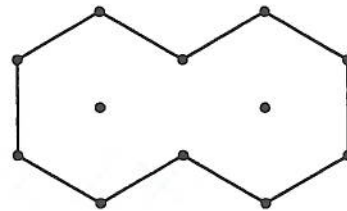
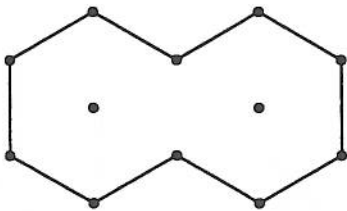
3. A pizza was cut into 6 slices. Benjamin ate $\frac{1}{3}$ of the pizza and Dana ate $\frac{1}{2}$. What fraction of the pizza was left? _____



4. Rafael drew a line segment $2\frac{7}{8}$ inches long. Then he erased $\frac{4}{8}$ inch. How long is the line segment now? _____ inches



5. Two hexagons together are one whole. Draw line segments to divide each whole into trapezoids, rhombuses, and triangles. Write a number model to show how the parts add up to the whole.



Practice

6. $\frac{1}{4}$ of 32 = _____ 7. _____ = $\frac{9}{10}$ of 50 8. $\frac{7}{8}$ of 56 = _____ 9. _____ = $\frac{11}{12}$ of 24

STUDY LINK
7•6

Many Names for Fractions



Write the letters of the pictures that represent each fraction.

1. $\frac{1}{2}$ C, _____

2. $\frac{3}{4}$ _____

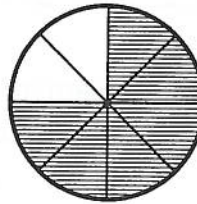
3. $\frac{4}{5}$ _____

4. $\frac{2}{3}$ _____

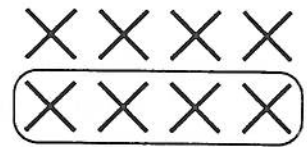
A



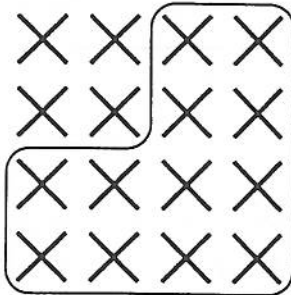
B



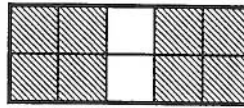
C



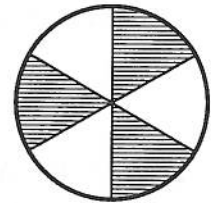
D



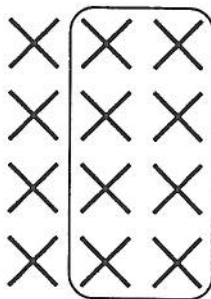
E



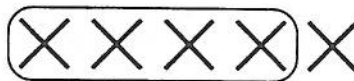
F



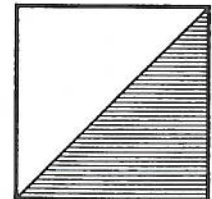
G



H



I



Practice

5. _____ = $\frac{1}{6} + \frac{3}{6}$

6. $\frac{2}{4} + \frac{1}{4} =$ _____

7. $\frac{1}{2} + \frac{2}{6} =$ _____

8. $\frac{5}{6} - \frac{2}{6} =$ _____

9. $\frac{3}{4} - \frac{1}{4} =$ _____

10. $\frac{1}{3} - \frac{1}{6} =$ _____

STUDY LINK
7·7

Fraction Name-Collection Boxes



In each name-collection box:

Write the missing number in each fraction so that the fraction belongs in the box. Write one more fraction that can go in the box.

1.

$\frac{1}{2}$
$\frac{\square}{4}$
$\frac{5}{\square}$
$\frac{10}{\square}$
$\frac{\square}{18}$

2.

$\frac{2}{3}$
$\frac{\square}{9}$
$\frac{12}{\square}$
$\frac{20}{\square}$
$\frac{\square}{12}$

3.

$\frac{1}{4}$
$\frac{\square}{12}$
$\frac{5}{\square}$
$\frac{10}{\square}$
$\frac{\square}{100}$

4. Make up your own name-collection box problems like the ones above. Ask a friend to solve your problems. Check your friend's work.

a.

b.

Practice

5. _____ = $95 / 4$ 6. $57 \div 3 =$ _____ 7. _____ = $882 / 21$

STUDY LINK
7·8

Fractions and Decimals



Write 3 equivalent fractions for each decimal.

Example:

$$0.8 \quad \frac{8}{10} \quad \frac{4}{5} \quad \frac{80}{100}$$

1. 0.20 _____ _____ _____

2. 0.6 _____ _____ _____

3. 0.50 _____ _____ _____

4. 0.75 _____ _____ _____

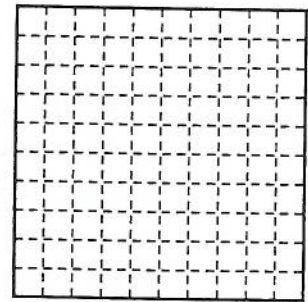
Write an equivalent decimal for each fraction.

5. $\frac{3}{10}$ _____ 6. $\frac{63}{100}$ _____ 7. $\frac{7}{10}$ _____ 8. $\frac{2}{5}$ _____

9. Shade more than $\frac{53}{100}$ of the square and less than $\frac{8}{10}$ of the square. Write the value of the shaded part as a decimal and a fraction.

Decimal: _____

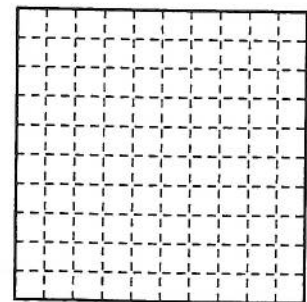
Fraction: _____



10. Shade more than $\frac{11}{100}$ of the square and less than $\frac{1}{4}$ of the square. Write the value of the shaded part as a decimal and a fraction.

Decimal: _____

Fraction: _____


Practice


11. _____ = $78 * 9$ 12. $461 * 7 =$ _____ 13. _____ = $39 * 25$

STUDY LINK
7•10

What Is the ONE?



For Problems 1 and 2, use your Geometry Template or sketch the shapes.

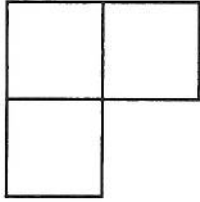
1. Suppose  is $\frac{1}{4}$. Draw each of the following:


Example: $\frac{3}{4}$

a. 1

b. $1\frac{1}{2}$

c. 2



2. Suppose  is $\frac{2}{3}$. Draw each of the following:

a. $\frac{1}{3}$

b. 1

c. $\frac{4}{3}$

d. 2

Use counters to solve the following problems.

3. If 14 counters are $\frac{1}{2}$, then what is the ONE?

_____ counters

4. If 9 counters are $\frac{1}{3}$, then what is the ONE?

_____ counters

5. If 12 counters are $\frac{2}{5}$, then what is the ONE? _____ counters

6. If 16 counters are $\frac{4}{9}$, then what is the ONE? _____ counters

Practice

7. _____ = $\frac{1}{4} + \frac{1}{2}$

8. $\frac{1}{3} + \frac{1}{6} =$ _____

9. $\frac{3}{4} - \frac{1}{4} =$ _____

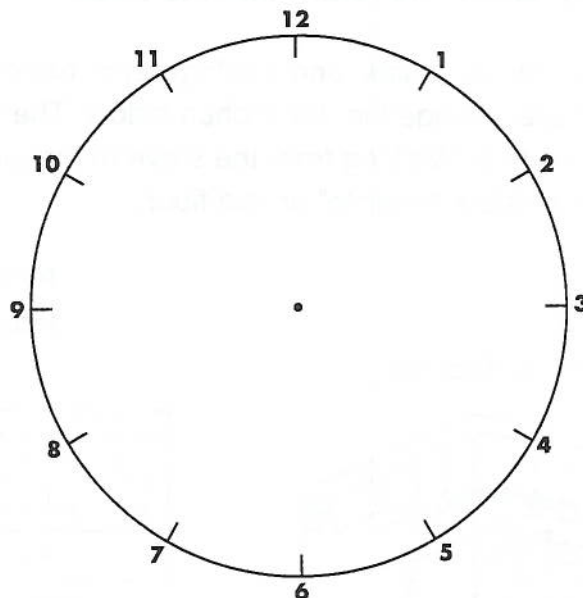
10. _____ = $\frac{5}{6} - \frac{1}{3}$

STUDY LINK
7•11

Spinners and Fractions



1. Design your own spinner with as many colors as you wish. Use a pencil until you are satisfied with your work, then color your spinner.



2. Describe your spinner.

- a. The chances of the paper clip landing on _____ are _____ out of _____.
(color)
- b. The paper clip has a _____ chance of landing on _____.
(color)
- c. It is unlikely that the paper clip will land on _____.
(color)
- d. It is _____ times as likely to land on _____ as on _____.
(color) (color)
- e. It is more likely to land on _____ than _____.
(color) (color)

Practice

3. _____ = $87 \div 3$

4. $6 \overline{)99} =$ _____

5. $945 \div 9 =$ _____

6. $706 \div 5 =$ _____

STUDY LINK
7•11

Layout of a Kitchen

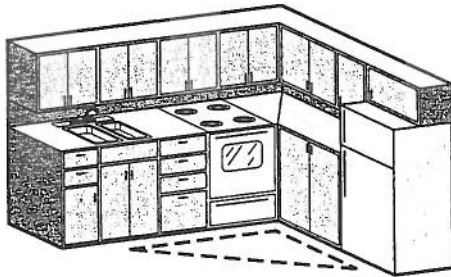


Pages 235 and 236 will be needed to do Lesson 8-1 in the next unit.
 Please complete the pages and return them to class.

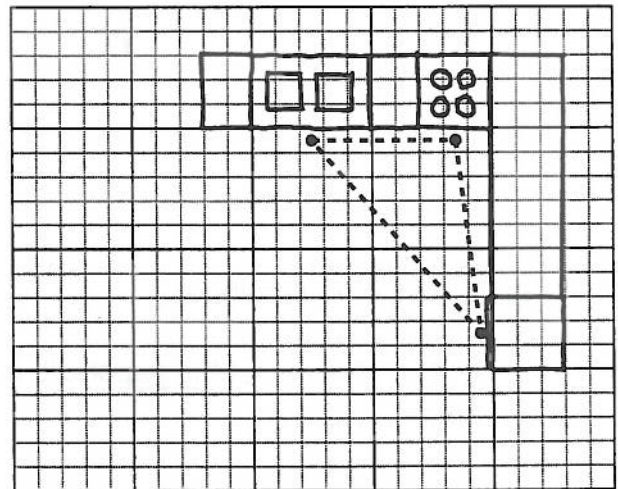


Every kitchen needs a stove, a sink, and a refrigerator. Notice how the stove, sink, and refrigerator are arranged in the kitchen below. The triangle shows the work path in the kitchen. Walking from the stove to the sink and to the refrigerator forms an invisible “triangle” on the floor.

Front View of Kitchen



Bird's-Eye View of Kitchen
 (looking down at appliances
 and countertops)



The side of a grid square represents 1 foot.

- Put one coin or other marker on the floor in front of your sink, one in front of your stove, and one in front of your refrigerator.
- Measure the distance between each pair of markers. Use feet and inches, and record your measurements below.

Distance between

- a. stove and refrigerator About _____ feet _____ inches
- b. refrigerator and sink About _____ feet _____ inches
- c. sink and stove About _____ feet _____ inches

STUDY LINK
7·11

Layout of a Kitchen *continued*

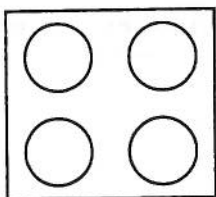


3. On the grid below, make a sketch that shows how the stove, sink, and refrigerator are arranged in your kitchen.

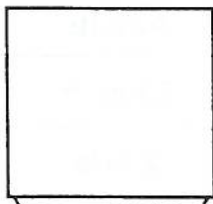
Your sketch should show a bird's-eye view of these 3 appliances (including all countertops).

If your oven is separate from your stove, sketch the stove top only.

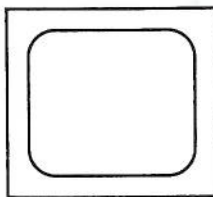
Use the following symbols in your sketch:



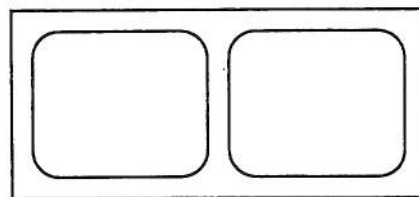
stove



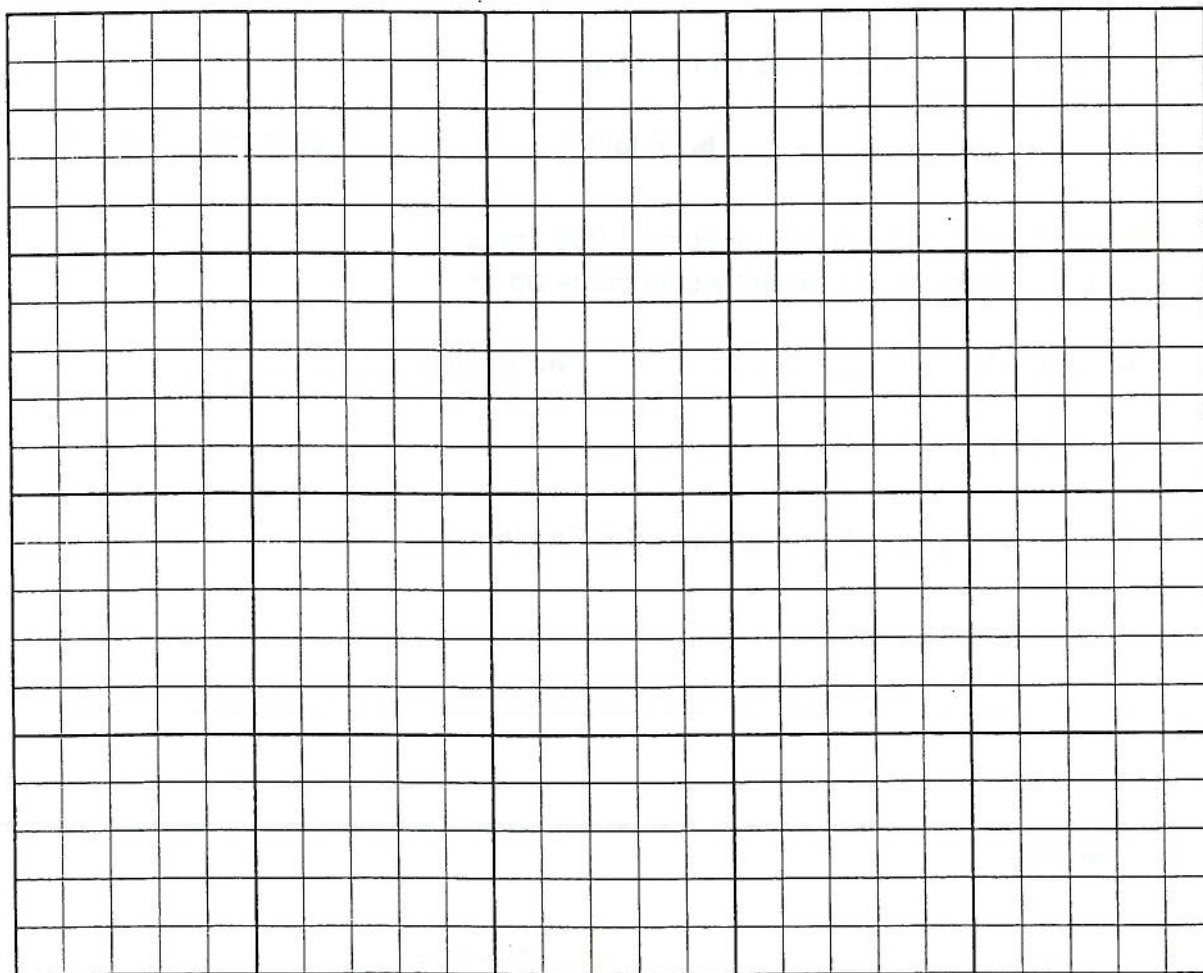
refrigerator



sink



double sink



STUDY LINK
7•12

What Are the Chances?



1. You are going to toss 2 pennies 20 times. How many times do you expect the 2 pennies will come up as

- a. 2 heads? _____ times b. 2 tails? _____ times
 c. 1 head and 1 tail? _____ times

2. Now toss 2 pennies together 20 times. Record the results in the table.

A Penny Toss	
Results	Number of Times
2 heads	
2 tails	
1 head and 1 tail	

3. What fraction of the tosses came up as

- a. 2 heads? _____ b. 2 tails? _____ c. 1 head and 1 tail? _____

4. Suppose you were to flip the coins 1,000 times. What fraction do you expect would come up as

- a. 2 heads? _____ b. 2 tails? _____
 c. 1 head and 1 tail? _____

5. Explain how you got your answers for Problem 4.

Practice

6. $7 * 48 =$ _____

7. $874 * 9 =$ _____

8. _____ = $45 * 86$

9. _____ = $34 * 142$