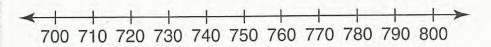
Rounding to the Nearest Hundred

Rinaldo wants to round his numbers to the nearest hundred.



Rinaldo's numbers are ____ and ____.

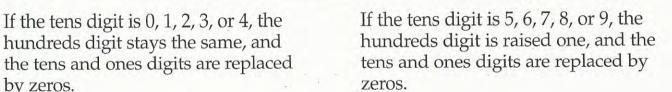
The number 746 is between ____ and ____.

It is closer to _____.

The number 769 is between ____ and ____.

It is closer to _____.

To round to the nearest hundred, look at the tens digit.



Rinaldo rounds 746 to ____. Rinaldo rounds 769 to ____.

the tens and ones digits are replaced

by zeros.

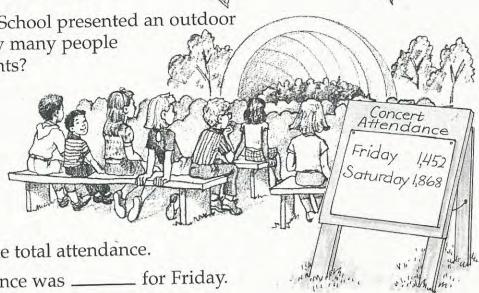
Getting Started _____

Round each green number or amount of money to the nearest hundred or dollar. Circle the answer.

Round each number or amount of money to the nearest hundred or dollar.

Adding 4-Digit Numbers

Washington High School presented an outdoor band concert. How many people attended both nights?



We must find the total attendance.

Concert attendance was _____ for Friday.

Attendance for Saturday was _____.

To get the total, we add _____ and ____.

Add the ones. Regroup if needed.

$$1,452 \\ + 1,868 \\ \hline 0$$

Add the tens. Regroup if needed.

$$1,452$$
 $+ 1,868$
 20

Add the hundreds. Regroup if needed.

$$1,452$$
 $+ 1,868$
 320

Add the thousands.

$$1,452 + 1,868 \over 3,320$$

The total concert attendance was _____.

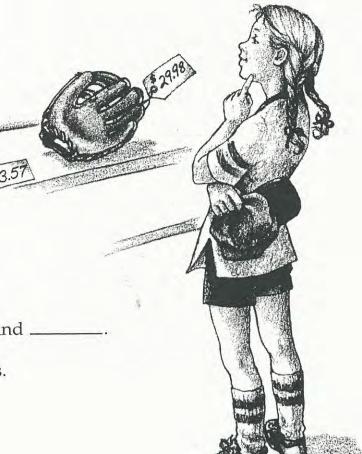
Getting Started _____

Add.

Copy and add.

Adding Money

Rachel was chosen to play on the third-grade baseball team. She must earn the money to buy her equipment. How much will she need to buy the glove and ball?



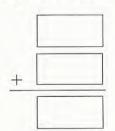
We want to know the cost of both the glove and the ball.

The glove costs _____.

The baseball costs _____.

To find the total cost, we add _____ and ____.

REMEMBER Line up the dollars and cents. Don't forget the dollar sign.



Rachel must earn _____.

Getting Started _____

Add.

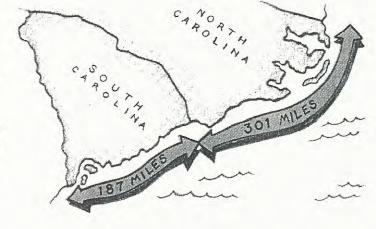
Copy and add.

Zeros in Subtraction

The states of North and South Carolina both are bounded on the east by the Atlantic Ocean. How much longer is North Carolina's coastline than South Carolina's?

We are looking for how much longer North Carolina's coast is than South Carolina's.

The North Carolina coast is ____ miles long.



South Carolina's coast is ____ miles long.

To find the difference, we subtract ____ from ____.

Subtract the ones. Regroup if needed.

Subtract the tens. Regroup if needed.

Subtract the hundreds.

$$\frac{\overset{?}{3}01}{-187}\\\frac{114}{}$$

North Carolina has ____ more miles of coastline than South Carolina.

Getting Started ____

Subtract.

Copy and subtract.

$$9.804 - 685$$

10.
$$200 - 198$$

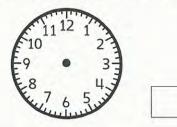
12.
$$610 - 88$$

Time to One Minute

It takes Manuel 20 minutes to walk home from soccer practice. Show on the clocks what time Manuel will arrive home.

We want to know what time Manuel will get home. He leaves practice at _____.

It takes him ____ minutes to walk home. It takes 5 minutes for the minute hand to move from one number to the next.





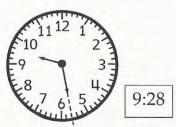
Manuel will get home at ____. We read and write

this as _____ or twenty-five minutes to five.

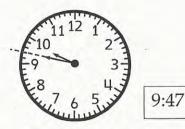
Study the clock times.



three minutes after nine



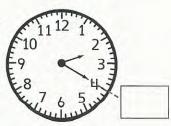
nine twenty-eight



nine forty-seven or thirteen minutes to ten

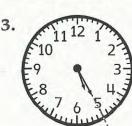
Getting Started _____

For Exercises 1 and 2, write the time as you would see it on a digital clock.





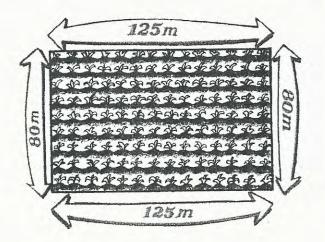
Write the time as you would say it.



Meters and Kilometers

To keep animals away from the corn, Mrs. Lawrence wants to put a fence around the whole cornfield. How much fencing will she need?

We want to find the perimeter, or total distance, around the field.

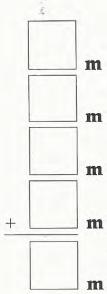


We know:

The sides of the cornfield measure ____ meters,

____ meters, ____ meters, and ____ meters.

To find the perimeter, we add all the sides.



Mrs. Lawrence needs ____ meters of fencing.

Getting Started _

Would you measure each in centimeters, meters, or kilometers?

1. height of a house

2. length of a river

Circle the better estimate.

3. width of a book
22 cm
22 m

Find the perimeter.

4. 60 km 64 km 70 km

Milliliters and Liters

Jerry is making breakfast for his mother on Mother's Day. Will the bottle he is filling hold about 1 milliliter or 1 liter of orange juice?

We know:

1 liter = 1,000 milliliters

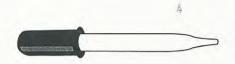
 $1 L = \underline{\hspace{1cm}} mL$

Liters and milliliters are measures of volume.

Volume is the amount of space inside something.



It takes about 4 glasses to fill one liter bottle.



It takes an eyedropper to measure about one milliliter.

The volume of the juice bottle is about 1 _____.

Getting Started _____

Would you measure the volume of these in milliliters or liters?

1.

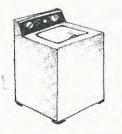


2.



3.





Grams and Kilograms

Matthew and his brother are unpacking the groceries. Does the bag of flour weigh about 2 grams or 2 kilograms?

We know:

$$1 kg = \underline{\hspace{1cm}} g$$



A paper clip weighs about 1 gram.



A large book weighs about 1 kilogram.

The bag of flour weighs about 2 _____.

Getting Started

Would you weigh each in grams or kilograms?

1.



2.



3.



4.



5.



6



Multiply.

1.
$$7$$
 1
 1
 5
 4
 6
 3
 4
 8

 $\times 3$
 $\times 3$
 $\times 5$
 $\times 8$
 $\times 3$
 $\times 0$
 $\times 1$
 $\times 9$
 $\times 1$

4. 9 3 4 0 9 3 6 8 7
$$\times 2$$
 $\times 0$ $\times 8$ $\times 3$ $\times 3$ $\times 3$ $\times 3$ $\times 1$ $\times 0$ $\times 4$

8.
$$7 \times 0 =$$
 $2 \times 3 =$ $2 \times 0 =$ $2 \times 0 =$

Multiply.

22.
$$7 \times 9 =$$

23.
$$7 \times 8 =$$

22.
$$7 \times 9 =$$
 ____ **23.** $7 \times 8 =$ ____ **24.** $6 \times 9 =$ ____ **25.** $6 \times 7 =$ ____

25.
$$6 \times 7 =$$

26.
$$9 \times 8 =$$
 ____ **27.** $6 \times 9 =$ ____ **28.** $6 \times 7 =$ ____ **29.** $7 \times 6 =$ ____

27.
$$6 \times 9 =$$

28.
$$6 \times 7 =$$

29.
$$7 \times 6 =$$

30.
$$7 \times 7 =$$
 ____ **31.** $8 \times 6 =$ ____ **32.** $8 \times 7 =$ ___ **33.** $9 \times 9 =$ ____

32.
$$8 \times 7 =$$

33.
$$9 \times 9 =$$

Solve each problem.

- **34.** There are 6 rows of trees. Each row has 9 trees. How many trees are there?
- 35. Balloons are sold in packages of 8. Rhonda bought 7 packages. How many balloons did Rhonda buy?
- 36. Use the prices in the chart below to find the total cost of the order.

Sale	
Washers	\$1
Hammers	\$9
Screwdrivers	\$4
Wrenches	\$3
Pliers	\$7

	Order For	m	
Number	Item	Cost	Total
5	Hammers		
4	Wrenches		
9	Pliers		
	4	Total Cos	it

Multiplying by 1-Digit Factors, Two Regroupings

Mr. Harris made 4 round trips on business from Ellis to Washington. How many travel miles should Mr. Harris record on his expense report?

Mr. Harris wants to know how many miles he drove, so he can fill out his expense report.

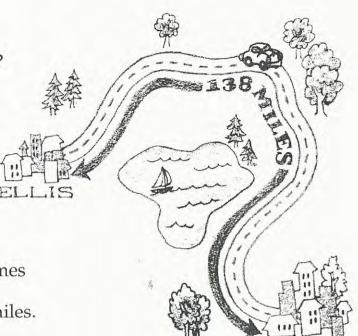
The distance between Ellis and

Washington is ____ miles.

A round trip between the cities is 2 times

the distance between them, or ____ miles.

Mr. Harris made ____ round trips.



WASHINGTON

Multiply the ones. Regroup if needed.

$$\begin{array}{r} 2\\2\\7\\6\\\times\\4\\\hline4\end{array}$$

Multiply the tens. Add any extra tens. Regroup if needed.

$$\begin{array}{r}
 32 \\
 276 \\
 \times 4 \\
 \hline
 04
 \end{array}$$

Multiply the hundreds. Add any extra hundreds.

$$\frac{\overset{3}{276}}{\overset{4}{1,104}}$$

Mr. Harris should record _____ miles on his expense report.

Getting Started _____

Multiply.

Copy and multiply.

5.
$$623 \times 6$$

6.
$$290 \times 4$$

7.
$$257 \times 8$$

8.
$$399 \times 9$$

Practice

Multiply.

Copy and multiply.

17.
$$157 \times 8$$

18.
$$4 \times 538$$

19.
$$175 \times 9$$

20.
$$416 \times 3$$

22.
$$757 \times 2$$

23.
$$5 \times 919$$

25.
$$4 \times 212$$

27.
$$808 \times 3$$

Problem Solving

Solve each problem.

- **29.** Juanita started with \$24.50. She spent \$19.38. How much money did she have left?
- **31.** Each weekday for one week, 146 lunches were served in the school cafeteria. How many lunches were served?
- **30.** Bill bought a sweater for \$29.50 and a shirt for \$16.37. How much did he spend?
- **32.** The custodian set up 8 rows of chairs, with 125 chairs in each row. How many chairs did the custodian set up?

166

Geometry

Lesson 10-1

triangle

Plane Figures

Plane figures are shapes that appear on flat surfaces. Some plane figures, like squares and triangles, are called polygons. They have straight sides and corners. Other plane figures, like circles, have curved sides and no corners.

Study these plane figures. They are polygons.

_	 	_
		- 1

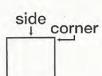
rectangle





pentagon hexagon

octagon



square





Getting Started

Write the name of the plane figure you see in each object.

1.



2.



3.





Complete the table.

Plane Figure	Name	Number of Straight Sides	Number of Corners	Is the figure a polygon?
			-	
			Report of	
				+

Lines, Rays, and Line Segments

A **point** is a position in space.

A **line** is a set of points that go on indefinitely in both directions.



A **line segment** is part of a line. It has two endpoints.



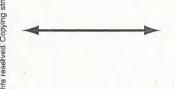
A **ray** is part of a line. It has one endpoint.



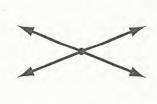
A line that goes across is called a **horizontal line**.

A line that goes up and down is called a **vertical line**.

Lines that meet at one point are called intersecting lines. Lines that do not intersect in the same plane, or flat surface, are called parallel lines.









Getting Started

Write the name for each.

1.



2.



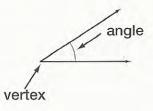
3.





Angles

Two rays that have a common endpoint make an **angle**. The common endpoint is called the **vertex** of the angle.



Angles are named according to the size of their openings. We can name angles by comparing the size of their openings to a right angle.

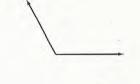
An angle that forms a square corner is called a **right angle**. The symbol used to show a right angle is \neg .



An **acute angle** has less of an opening than a right angle.

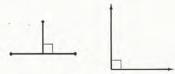


An **obtuse angle** has a greater opening than a right angle but less than a straight line.



We say that lines, line segments, or rays that form right angles are **perpendicular**.





Getting Started

Write the name of each angle.

1.



2.



3.



1

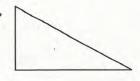


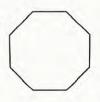
Write the number of right angles in each plane figure.

5.



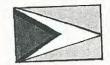
6.





Triangles

Look at the flag for Guyana, a small country in South America. What kinds of angles are on the flag? There are _____ angles and ____ angles on the flag.



There are several different kinds of triangles on Guyana's flag. To name a triangle, we can look at the lengths of its sides.



equilateral triangle

All sides are the same length.



isosceles triangle

At least two sides are the same length.



None of the sides are the same length.

On Guyana's flag, there are ______ triangles and _____ triangles.

Another way to name a triangle is by looking at the size of its angles.



right triangle

One angle is a right

acute triangle

All three angles are acute angles.



obtuse triangle

One angle is an obtuse angle.

On Guyana's flag, there are ______ triangles and _____ triangles.

Getting Started _____

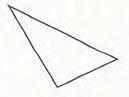
Write equilateral, isosceles, or scalene for each triangle.

1.

angle.



2



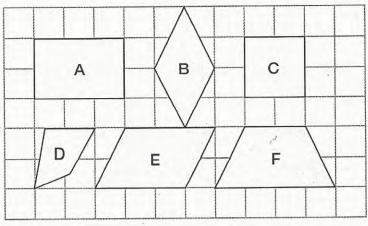


Quadrilaterals

All the figures Daria drew on the grid are quadrilaterals. Each figure is a polygon with 4 sides.

The figure labeled A is a _____ Figure C is a square.

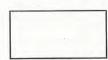
Quadrilaterals are named by their sides and angles.





quadrilateral

Quad- means "four" four sides and four angles.



rectangle

Four right angles and opposite sides are the same length.



square

Four right angles and all sides are the same length.



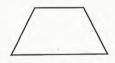
parallelogram

Opposite sides are parallel and the same length.



rhombus

Opposite sides are parallel and all sides are the same length.



trapezoid

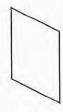
There is only one pair of parallel sides.

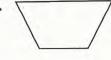
In Daria's drawings above, figure B is a _____, figure D is a ______, figure E is a _____, and figure F is a _____

Getting Started _____

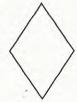
Write the name of each quadrilateral.

1.









Pictographs

Roberto collects scallop shells. He made a pictograph to show the number of shells he had collected each month. How many shells did Roberto collect in July?

We want to find the number of shells Roberto collected in July.

The graph shows ____ shells for July.

Each picture stands for ____ actual shells.

To find the number of shells collected in July, we multiply ____ by ____.

Roberto collected _____ scallop shells in July.

	Shell Collection
June	
July	
August	
September	

Each stands for 5 shells.

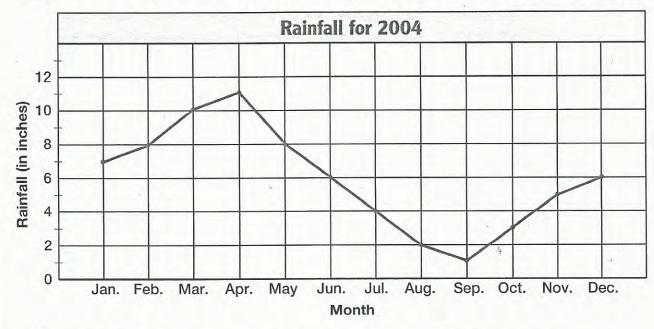
Getting Started _____

Use the pictograph to answer each question.

- 1. How many shells did Roberto collect in August? ____
- 2. How many shells did Roberto collect in June? ____
- 3. How many shells did he collect from June through September? ____
- 4. How many more shells did Roberto collect in July than in June? ____
- 5. In which months did Roberto collect the same number of shells?
- 6. In which month did Roberto collect the most shells?

Making and Using Line Graphs

A line graph is a good way to show changes in information over time. This line graph shows the rainfall for 2004. What was the greatest rainfall and when did it occur?



We want to find the greatest rainfall and the month it occurred.

The inches of rainfall go up the _____ side of the line graph.

The ______ goes across the _____ of the line graph.

To find the greatest rainfall amount, start with the lowest amount on the graph.

Follow the inches up the side of the chart to the highest dot, _____.

Then go down in a straight line to the bottom of the chart to ______.

The greatest rainfall was 11 inches and it occurred in ______.

Getting Started _____

Use the line graph above to answer these questions.

- 1. What was the rainfall in June?
- 2. What was the least amount of rainfall?
- 3. In what month was the least rainfall? _____
- 4. Between which two months was there the greatest difference in rainfall? _____

Naming Parts of a Whole

Rosita is making a quilt for her bed. She has finished 3 of the quilt's 4 squares. What part of the guilt has Rosita completed?

We want to write a number that shows the part of the quilt that is finished.

Rosita has finished ____ squares of the quilt.

The finished quilt will have ____ squares.

We use a fraction to show what part is finished.

finished parts \rightarrow 3 \leftarrow numerator parts in the $\rightarrow \overline{4}$ \leftarrow denominator whole quilt

Three-fourths or \sqsubseteq of the quilt is finished.



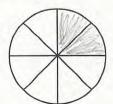
Getting Started _____

Write each as a fraction.

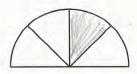
- 1. five-twelfths ____ 2. one-eighth ____ 3. three-hundredths ____

Write the fraction of each figure that is green.

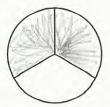




6.



Write the fraction of each figure that is not green.







Writing Equivalent Fractions

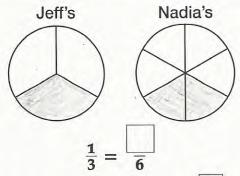
Jeff and Nadia are cutting pies to serve at the PTA social. Jeff cuts his pies into thirds, and serves $\frac{1}{3}$ of a pie to each person. Nadia cuts her pies into sixths. How many sixths does Nadia have to serve to each person to equal Jeff's serving?

We want to know how many of Nadia's pieces equal one of Jeff's.

Each of Jeff's pieces is $\frac{\square}{\square}$ of a pie.

Nadia cuts her pie into _____ equal pieces.

We can draw a picture and compare the pies.



One-third of Jeff's pie equals of Nadia's pie.



Fractions that are equal are called equivalent fractions.

Getting Started _____

Write the equivalent fractions.





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

2.





$$\frac{1}{3} =$$

Draw a picture to help you complete each number sentence.

3.
$$\frac{1}{2} = \frac{\Box}{6}$$

4.
$$\frac{3}{4} = \frac{\square}{8}$$

Write the equivalent fractions.

1.

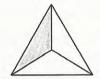




$$\frac{1}{3} =$$

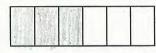
3.





$$\frac{2}{6} =$$

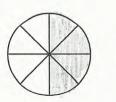
5.





$$\frac{3}{6} =$$

7.





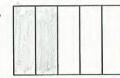
2.

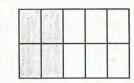




$$\frac{1}{4} =$$

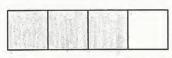
4.

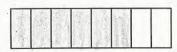




$$\frac{2}{5} =$$

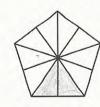
6.

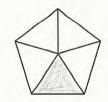




$$\frac{3}{4} =$$

8.





$$\frac{2}{10} =$$

Draw a picture to help you complete each number sentence.

9.
$$\frac{8}{10} = \frac{\square}{5}$$

10.
$$\frac{\Box}{9} = \frac{1}{3}$$

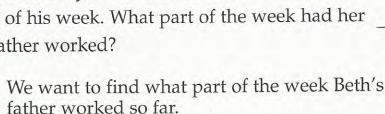
11.
$$\frac{3}{6} = \frac{\Box}{12}$$

278

12.
$$\frac{4}{8} = \frac{\square}{2}$$

Adding Fractions

On Monday, Beth's father told her he had worked $\frac{1}{5}$ of his workweek already. On Wednesday, he said he had worked another $\frac{2}{5}$ of his week. What part of the week had her father worked?





By Monday evening he had worked $\stackrel{\square}{=}$ of a week.

Tuesday and	Wednesday he had	worked	another	of a week.

To find the part of the week that he had worked, we add $\frac{1}{5}$ and $\frac{2}{5}$.

of his workweek. Beth's father had worked \(\subseteq \)

REMEMBER When the denominators are the same, only the numerators are added. The denominator remains the same.

Getting Started ____

Shade the figures. Add the fractions.

Shade $\frac{3}{6}$.

Shade another
$$\frac{1}{6}$$
. $\frac{3}{6} + \frac{1}{6} =$ ____

$$\frac{3}{6} + \frac{1}{6} =$$

Shade $\frac{2}{8}$.

Shade another
$$\frac{3}{8}$$
.

$$+\frac{3}{8}$$

Shade the figures. Add the fractions.

1.

Shade $\frac{1}{6}$.

Shade another $\frac{2}{6}$. $\frac{1}{6} + \frac{2}{6} =$

3.

Shade $\frac{3}{8}$.

Shade another $\frac{2}{8}$. $\frac{3}{8} + \frac{2}{8} =$ ____

5.

Shade $\frac{1}{4}$.

Shade another $\frac{2}{4}$. $\frac{1}{4} + \frac{2}{4} =$ ____

7.

Shade $\frac{4}{9}$.

Shade another $\frac{3}{9}$. $\frac{4}{9} + \frac{3}{9} = _____$

9.

Shade $\frac{5}{10}$.

Shade another $\frac{3}{10}$. $\frac{5}{10} + \frac{3}{10} =$ _____

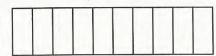
2.



Shade $\frac{2}{5}$.

Shade another $\frac{2}{5}$.





Shade $\frac{3}{10}$.

Shade another $\frac{2}{10}$.



6.



Shade $\frac{3}{7}$.

Shade another $\frac{4}{7}$.





Shade $\frac{5}{8}$.

Shade another $\frac{2}{8}$.



10.

Shade $\frac{2}{6}$.

Shade another $\frac{3}{6}$.

Subtracting Fractions

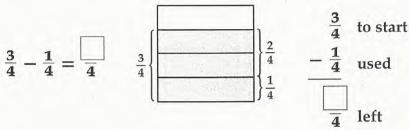
Daphne is making instant pudding. She needs $\frac{1}{4}$ cup of milk. How much milk will she have left in her measuring cup?

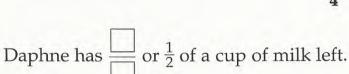
We want to know how much milk Daphne will have left.

Daphne starts with cup of milk.

She uses cup of milk for pudding.

To find the part left over, we subtract $\frac{1}{4}$ from $\frac{3}{4}$.





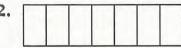
REMEMBER When the denominators are the same, only the numerators are subtracted. The denominator remains the same.

Getting Started _____

Shade the figures. Subtract the fractions.

Shade $\frac{5}{6}$.

Cross out
$$\frac{3}{6}$$
. $\frac{5}{6} - \frac{3}{6} =$ ____



Shade $\frac{6}{7}$.

Cross out
$$\frac{5}{7}$$
.

$$-\frac{5}{7}$$

Practice ____

Shade the figures. Subtract the fractions.



Shade $\frac{3}{8}$.

Cross out $\frac{1}{8}$. $\frac{3}{8} - \frac{1}{8} =$ _____



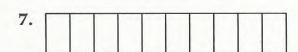
Shade $\frac{5}{7}$.

Cross out $\frac{2}{7}$. $\frac{5}{7} - \frac{2}{7} =$ _____



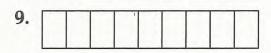
Shade $\frac{3}{4}$.

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



Shade $\frac{9}{10}$.

Cross out $\frac{6}{10}$. $\frac{9}{10} - \frac{6}{10} =$ _____



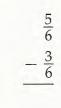
Shade $\frac{5}{9}$.

Cross out $\frac{3}{9}$. $\frac{5}{9} - \frac{3}{9} =$ ____



Shade $\frac{5}{6}$.

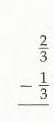
Cross out $\frac{3}{6}$.





Shade $\frac{2}{3}$.

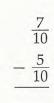
Cross out $\frac{1}{3}$.



6.

Shade $\frac{7}{10}$.

Cross out $\frac{5}{10}$.

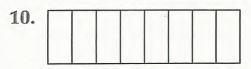


8.

Shade $\frac{4}{5}$.

Cross out $\frac{3}{5}$.





Shade $\frac{7}{8}$.

Cross out $\frac{3}{8}$.

