Smiley Face Math
Grade 3, Worksheet I

Name: _____

☺☺   1. Shantell wants to plant a flower garden. The garden will have 8 rows with 6 flowers in each row. She has already planted 1 row of her garden.

How many plants will Shantell have in her garden? _____ plants

How many more plants does she need to buy? _____ more plants

☺☺☺   2.   A class of 27 students wanted to ride the bumper cars at the fair. Only 10 students can ride at a time. How many turns will it take for the entire class to get to ride on the bumper cars?

Answer: _____ turns are needed

☺☺☺   3. Marcus wanted a scoop of ice cream with a topping. He had 2 choices of ice cream: chocolate, and vanilla. He had 3 choices of toppings: an Oreo, whipped cream, or a strawberry. How many different combinations of ice cream and topping did Marcus have to select from?

Answer: _____ choices

☺☺☺   4. A word is shown to the right.
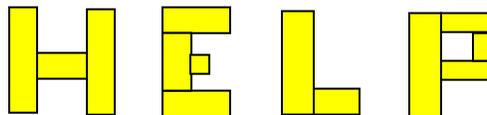
What word is it? _____

How many rectangles did it take to spell this word? _____

How many *right angles* do all of those rectangles have, altogether? _____

☺ ☺ ☺ ☺   5. Isabella gave 3/6 of her 6-pack of soda to her friends. Cross out the part she gave away. Antoine drank ½ of his 6-pack of soda. Cross out the part he drank.

Isabella's   Antoine's

      a. Who has the most soda remaining, or do they have the same amount left?
         Explain:

      b. What fraction is bigger, 3/6 or 1/2? Or are they equal fractions? Use your answer above to explain your thinking.

☺ ☺   6. Look at the class to the right.

      a. What *fraction* of the students are girls? _____

      b. What *fraction* of the students are boys? _____

   Key: Boy is

                         Girl is
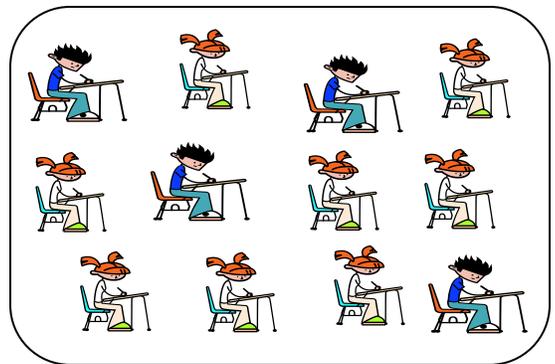
☺   7. In the classroom above, which is larger, the fraction of girls or the fraction of boys? _____

Explain:

☺ ☺   8. Bill needed 18 eggs for a camping trip. A full carton of eggs normally has 12 eggs in it. Explain why Bill can say he needs 1½ cartons of eggs.

      Explain:

☺ ☺ ☺ ☺ 1. a. Explain what this graph shows: _____
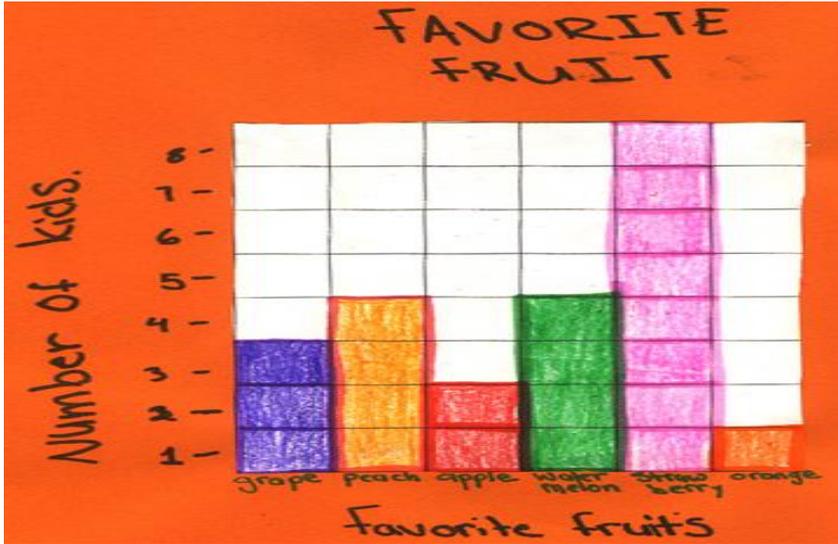
b. How many different fruits could a student choose from? _____

c. How many students voted? _____

d. If the students who said *apple* was their favorite switched to *grape,* how many votes would *grape* have then? _____

☺ 2. Kelley just showed up for lunch and got in trouble for being 15 minutes late. What time should she have been at the table?

Answer: _____

☺ ☺ 3. a. What fraction of the cake has been eaten? _____   Explain how you know:
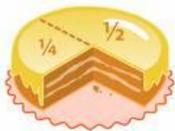
b. What fraction of the cake is left? _____ Explain how you know:

☺ ☺ 4. What fraction of the cars would be ok to drive if it were raining outside? _____

☺ ☺ ☺ ☺ 5. Three tables and chairs like the ones below are needed for a meeting.

a. Write and solve an addition problem for the total number of people who can attend the meeting.

_____

b. Write a multiplication problem that also shows how many people can attend the meeting.

_____

☺ ☺ ☺ 6. Johnny the Clown has two kids himself. His two brothers and three sisters each have 2 kids.

a. Draw a picture to find the number of kids in the family:

b. Write an addition sentence to find the number of kids: _____

c. Write a multiplication sentence to find the number of kids: _____

☺ 7. The shape below has 6 sides and 6 angles. a. What shape is this? _____
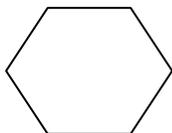
b. Are the angles *right angles*, *acute angles*, or *obtuse angles*? _____

c. How can you tell using the corner of a sheet of paper to check?

☺ ☺ ☺ 8. Kids were asked if they preferred pizza or ice cream. The results are shown in the pie chart.
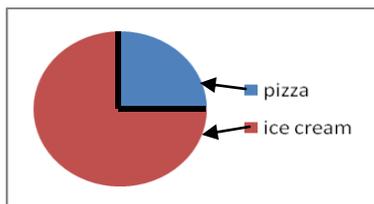
a. What fraction of the students liked pizza best? _____

b. What fraction liked ice cream best? _____

c. What is the *largest fraction,* the ones who liked pizza best or the ones who liked ice cream best?

_____

☺ ☺   1. Draw one line to turn this pentagon into *two* polygons with different names. What two polygons have you made?

         _____   _____
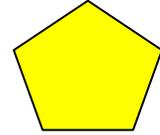
Draw one line to turn this pentagon into 2 polygons with the same name. What polygon have you made?

                         _____
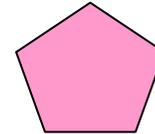
☺ ☺ ☺   2. The two "double arrows" below are congruent. What does congruent mean?
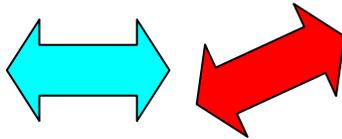
In the box, draw a congruent shape for this figure.
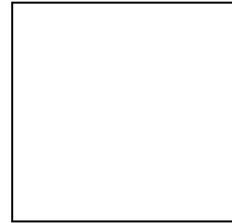
☺ ☺ ☺ ☺   3.

         1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th 13th 14th 15th 16th

        a. Will the 17th shark be swimming left or right? _____
        b. How about the shark after that? _____
        c. The 20th shark? _____
        d. The 25th shark? _____
        e. The 30th shark? _____
        f. Tell how to make this pattern of sharks:

☺ ☺   4.   The Tampa Bay Bucs had *five hundred sixteen thousand, one hundred eighty-eight* fans fill the stadium in 2008. Write that amount using numbers.

                         _____

Their goal for 2010 was to have *ten thousand* more fans attend. Write the total number of fans they wanted in 2010, using digits instead of words. _____

☺ ☺ ☺ 5. The pictures below are all road signs. Tell how many sides and and how many angles each has. Also tell if its angles are *acute*, *right*, or *obtuse*.

___ sides
___ angles
All angles are _____

___ sides
___ angles
All angles are _____

___ sides
___ angles
All angles are _____

☺ ☺ ☺ 6. Each of the signs above is a polygon. How are they the same? How are they different?
   Explain:

☺ ☺ 7. The star picture below shows a polygon with *line symmetry*. You could fold across any of the lines and the two pieces would be exactly alike. In the two polygons below, draw at least one *line of symmetry* in each figure.
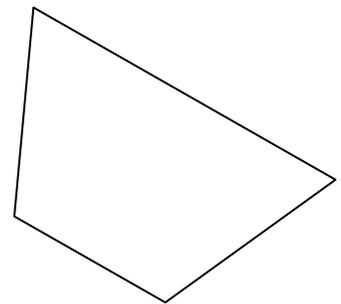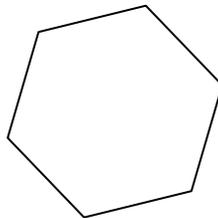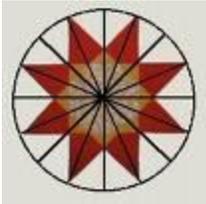
☺ 8. The piece of paper you are writing on has *line symmetry* because there are two lines you can fold on so the sides match up. Draw those two lines, and then measure their length in inches.

Answer: The two *lines of symmetry* for this paper are _____ inches long and _____ inches long.

Name: _____

☺ 1. There are seven ants marching in a line.

Write an addition sentence to show how many legs there are in all. _____

Write a multiplication sentence to show how many legs there are in all. _____

☺ ☺ ☺ 2. Look at the pattern below:

red   yellow   blue   red   yellow   blue   red   yellow   blue
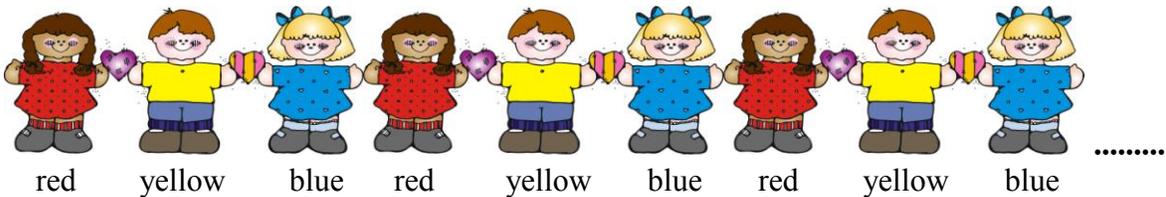
    a. If the pattern continues, what colored shirt would the 12th student wear? _____

    b. What colored shirt would the 13th student wear? _____

    c. What colored shirt would the 20th student wear? _____

☺ ☺ ☺ 3. The clock below shows what time Shamar's soccer practice ended.
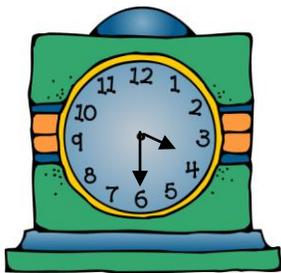
a. What time did practice end? _____

b. If practice was 1½ hours, what time did it start? _____

c. Shamar took 15 minutes to go home after practice. What time did he get home? _____

☺ ☺ ☺ 4. A third grade class took a field trip to The Florida Aquarium. In the octopus tank the students counted 32 legs.

How many octopi were in the tank? _____

☺ ☺ 5. Shown is 1 whole carton of eggs.

      a. If 6 eggs are cracked and have to be thrown out, what *fraction* of the carton is left?

           _____

      b. What is another fraction name for the carton with 6 eggs left?

           _____

      c. If another whole carton of eggs is added to the 6 eggs left above, what is a *mixed number* name for all the eggs you have?

           _____ cartons of eggs

☺ ☺ 6. a. Finish this addition sentence to show how many angles there are in 6 pentagons:
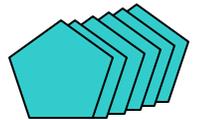
           $5 + 5 + 5 +$ _____ = _____

      b. Finish this multiplication sentence to show how many angles there are in 6 pentagons:

           $6 \times$ ___ = ____

☺ ☺ 7. a. Finish this addition sentence to show how many angles there are in 5 hexagons:
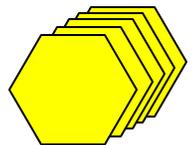
           $6 + 6 + 6 +$ _____ = _____

      b. Finish this multiplication sentence to show how many angles there are in 5 hexagons:

           $5 \times$ ___ = ____


☺ 8. Compare what you wrote for 6 (b) and 7 (b) above.

      Use this information to finish this new multiplication sentence:

           $6 \times 5 =$ ___ $\times$ ___ $= 30$

☺ ☺   1. Which story problem below can be described by the equation $7 \times 2 = 14$?   Circle it.

      a. There were 7 bicycles in the shop. 2 bicycles were sold. How many bicycles are
         there now?
      b. There were 7 bicycles in the shop. 2 new bicycles arrived. How many bicycles
         are there now?
      c. There were 7 bicycles in the shop. How many wheels are there in all?
      d. There were 7 bicycles in the shop. 2 bicycles lost their wheels. How many wheels
         are there now?

☺   2. There were 4 juice boxes in a package. After school, Dominic had one juice box and gave one
to his friend Michael.

    a. What fraction of the package was left?

               _____
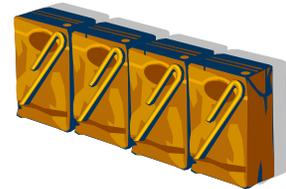
    b. Dominic's friend, James, came over and had a
    juice also. What fraction of the package was left
    then?

               _____

☺ ☺ ☺   3. The *perimeter* is the distance around a figure. The perimeter of the rectangle below is 20 units.

The length of the rectangle is 8. What is the width of the rectangle? _____units

8
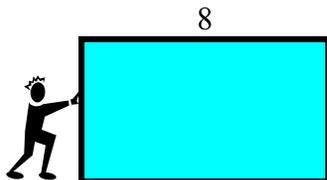
Explain how you found the answer:

☺ ☺ ☺ 4. A *right angle* is where two lines meet to make a perfect square corner. Some examples are shown below:

An *acute angle* is an angle which is *smaller* than a right angle. An *obtuse angle* is an angle which is *larger* than a right angle.

The clock hands below form angles. First tell what time it is on each clock. Then use the corner of a piece of paper and write either *right*, *acute*, or *obtuse* to describe the angles on each clock face.

Time: _____   Time: _____   Time: _____

Angle type: _____   Angle type: _____   Angle type: _____

☺ ☺ ☺ 5. Draw the hands to make *right* angles on the clocks below. Make the clocks show 2 different times. Use your card to draw the angles. Also, tell the time for both clocks.
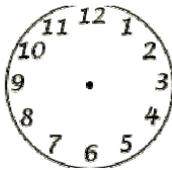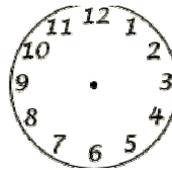
  Time: _____   Time: _____

☺ ☺ 6. Lucy liked to paint her friends' fingernails at Halloween. Finish this chart that shows how many fingernails she had to paint for different numbers of friends she had.

Number of friends:	1	2	3	4	5	.....	10
Number of nails:	10	___	___	___	___	.....	___

☺ ☺ ☺ 7. If Lucy painted 120 fingernails, how many friends did she have? _____

☺☺ ☺ 1. Joshua has $1.00 to spend at lunch. He gave his friend 1 quarter and 1 dime from his lunch money.

>   a. How much money does Joshua have left to spend? _____ ¢

>   b. List five possible coin combinations that total the money Joshua has left:

Quarters	Dimes	Nickels	Pennies

☺☺ 2. Shade one part of each of the fraction models below.
     Write the fraction for each shaded piece:
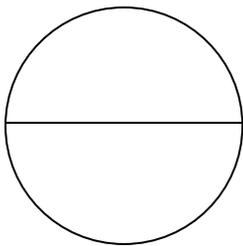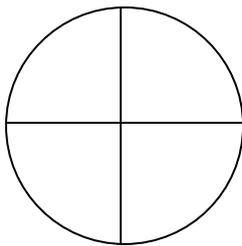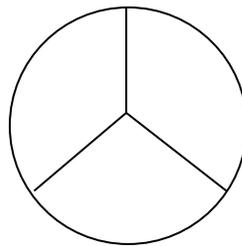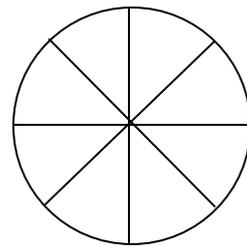
>   A. _____   B. _____   C. _____   D. _____

>   Which fraction above is the greatest? _____

>   Explain how you know.

☺☺☺ 3. There are 60 seconds in one minute. How many seconds are in 5 minutes? ____
         In 6 minutes? _____   In 10 minutes? _____
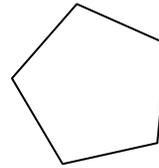
☺☺   4. What is the name of this shape? _____

Draw a line to cut the shape into a 3-sided shape and a 4-sided shape.

What is the name of the 3-sided shape you made? _____

What is the name of the 4-sided shape you made? _____

☺☺   5.   Use the table below to answer the following questions.

Number of students

| Grade	Boys	Girls
2	215	187
3	155	129
4	253	186
5	209	242

Which grade has ABOUT 300 students in all? _____

Which **two** grades have ABOUT 400 girls altogether? _____ & _____

☺☺☺   6. If you can trace a figure and place it over another figure and turn it so it exactly matches, the two figures are *congruent*. *Similar* figures have the same shape but not usually the same size. Tell if each pair of shapes below is *congruent* or *similar*.

and   are _____.
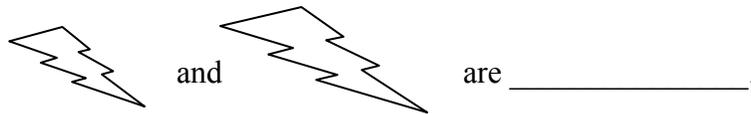
and   are _____.
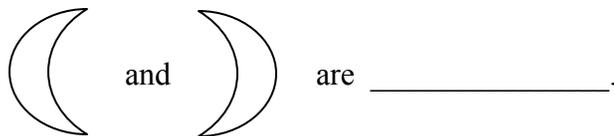
and   are _____.

☺☺   7. Jayne had 3 pieces of bread for breakfast. For lunch, she had twice as much bread as she had at breakfast. For supper, she had half as much as she had at lunch. How many pieces of bread did she have at supper?   _____ pieces

☺   1. Dontae had 10 baseball cards in his collection. He gave 4 away to his sister.

a. What *fraction* of baseball cards did he give away? _____

b. What *fraction* of baseball cards does he have left to keep? _____

☺ ☺ ☺   2. Naya made a chart to keep up with how much money she was saving when she received her allowance. She started the chart below:

Number of Weeks	Amount of money saved
1	$6
2	$12
3	$18
4	
5	
6	

a. Finish Naya's chart for 4, 5, and 6 weeks' of allowance.

b. What week will Naya have enough money to buy a $21 dollar computer game? ____

c. If Naya continues to save her allowance, how much money will she save by week 9? ____

☺ ☺   3. If Naya saves $60 by week 10, how many computer games can she buy at $7 each? _____

Explain how you know:

☺ ☺ ☺ ☺ 4. Trace over the four shapes below. *Decompose* the two-dimensional shapes to make two other shapes.

Example: a square is *decomposed*
                  to form 2 triangles

Shape 1   Shape 2   Shape 3   Shape 4
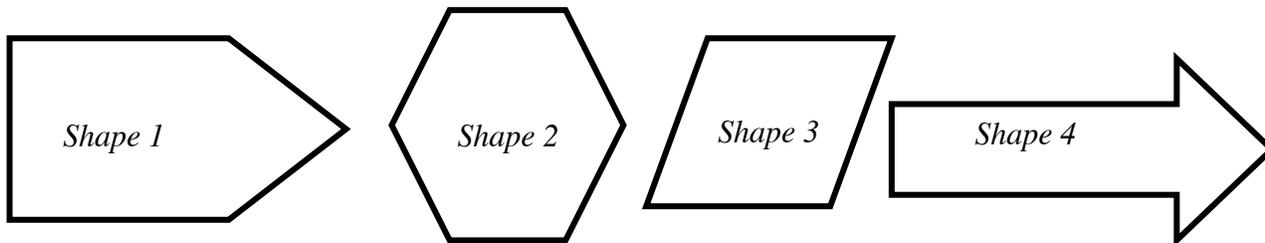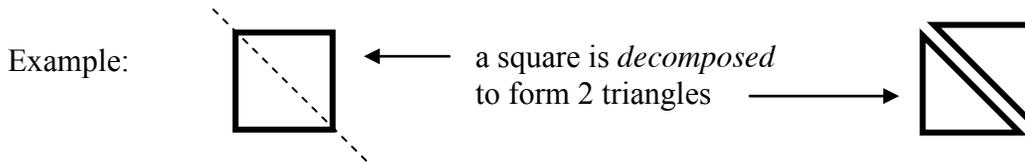
Name the two new shapes that you made from each shape:

Shape 1 became a _____ *and a* _____.

Shape 2 became a _____ *and a* _____.

Shape 3 became a _____ *and a* _____.

Shape 4 became a _____ *and a* _____.

☺ ☺   5. A picture of an ice cream cone has 4 *acute angles*. An *acute angle* is smaller than a *right angle*, like the picture of the envelope. The envelopes' four corners make up four *right angles*.

acute angles

right angles at
the 4 corners
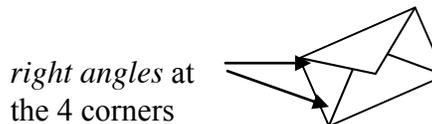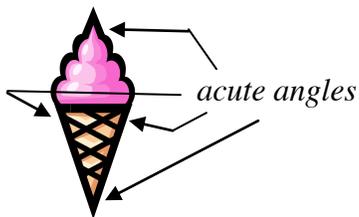
Find the angles in the pictures below. Look at the angle that is circled. Write if the angle is an *acute angle* or a *right angle*.

_____   _____   _____   _____

Smiley Face Math　　　　　　　　　　　Name:_____
Grade 3, Worksheet VIII

☺ ☺　　1. Aaron was packing for a 7-day camping trip. His mother told him to pack one pair of socks for each day of his trip plus an extra pair. How many socks will Aaron have in his bag? _____
　　　　　　　　　　　　　　　　Explain your answer:

☺ ☺　　2. What fraction is one pair of socks from the total pairs Aaron packed? _____

☺ ☺ ☺ ☺　3. Zauria picks strawberries in a field. Each time she bends down, she picks 5 strawberries but 2 strawberries fall out of her basket. She wants to collect 27 strawberries in all. How many times will she bend down to pick the strawberries?
　　　　　　(Hint: finish the table below. Use counters to keep track.)
Show your work here:

Number of bends	Strawberries in her basket
1	5 – 2 = 3
2	3 + 5 – 2 = 6

Answer: She had to bend over _____ times.

☺ ☺ ☺　4. Cole, Vaughn, and Gary collect stamps. Cole had 5 stamps in his collection. Vaughn had twice as many stamps as Cole. Gary had 3 times as many stamps as Cole.

　　a. Which boy had the *fewest* stamps? _____
　　b. Which boy had the *most* stamps? _____
　　c. *How many more* stamps did Gary have than Vaughn? _____

☺☺☺ 5. Roxana loves to eat apples. She ate ¼ of an apple at lunch and ¼ of the same apple after school. What fraction of the apple was left for her to eat at dinner? _____

Explain your answer:

☺☺ 6. Which fraction is bigger, 2/4 of an apple or ¾ of an apple? _____

Draw a picture to show what you mean:

☺☺☺☺ 7. A *survey* was taken to find out about 3rd graders' favorite sports. **5 students chose football, 1 chose tennis, 3 chose basketball, 4 chose soccer, 2 chose baseball, and 3 chose swimming.** Use this data to complete the *frequency table* and *bar graph* below.

Frequency Table

Favorite Sports to Play	
Sport's Name	Number of Students
Football	5
Tennis	
Basketball	
	4
	2
Swimming	

Bar Graph

Favorite Sports to Play

Number of Students

football _____ basketball _____ baseball swimming
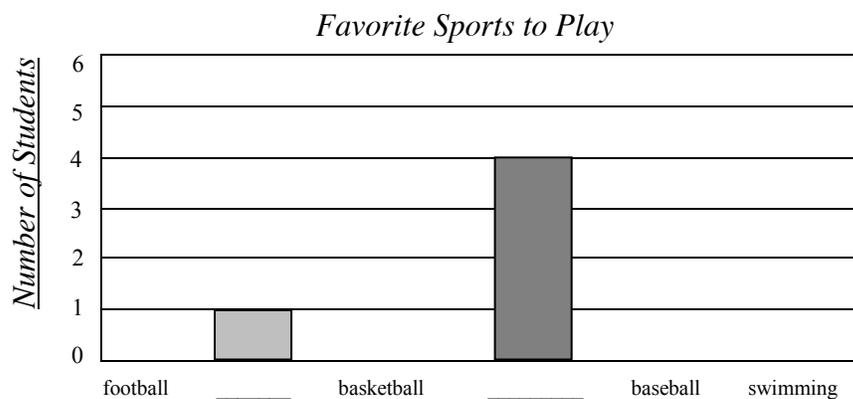
a. In all, how many students answered the *survey*? _____

b. How many students liked baseball best? _____

c. Which two sports had the same amount of students as their favorite? _____ & _____

d. *How many more* students liked soccer than tennis? _____

☺ ☺   1. Use an inch ruler to measure the sides of the trapezoid below. Measure each side to the
              nearest whole or ½ inch. List the measurements in the appropriate blanks below.
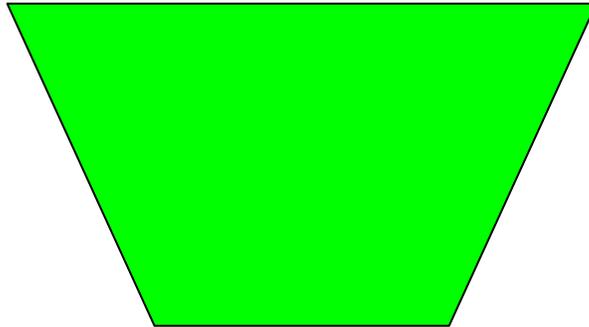
      Top: _____   Left: _____   Right: _____   Bottom: _____

Perimeter is the distance around a figure.
What is the *perimeter* of this trapezoid? _____

☺ ☺ ☺   2. Marcy put 2 dimes and 1 nickel into her piggy bank each week.

          a. At the end of a month, how many dimes had she put in? _____ How much
          money is that? _____

          b. At the end of a month, how many nickels had she put in? _____ How much
          money is that? _____

          c. At the end of a month, how much money altogether had she put in?   _____

☺ ☺   3. The next month, Marcy put a quarter into her bank each week.

          a. At the end of a month, how many quarters had she put in? _____
          How much money is that? _____

          b. Explain why Marcy had put in the same amount of money at the end
          of the first two months. Why is 8 dimes and 4 nickels the same amount
          of money as 4 quarters?

☺ ☺ 4. Joel, Lorelei, and Allison are triplets celebrating their birthday. Each triplet received their own birthday cake, and the cakes were all the same size.

Joel ate ¼ of his cake. Lorelei ate 3/8 of her cake. Allison ate 2/8 of her cake. Shade each model below to show how much each triplet ate.
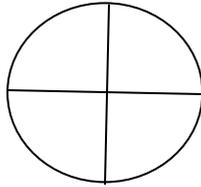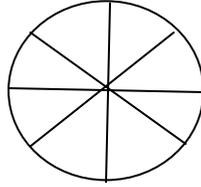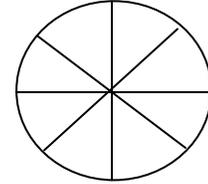
Joel   Lorelei   Allison

a. Which triplet ate the most cake? _____

b. Did Joel or Allison eat more cake? _____   Explain how can you tell:

☺ ☺ 5. Desireé wants to build a fence around the *perimeter* of her yard. She made a drawing on grid paper. Each length on the grid represents 3 meters. What is the *perimeter* of the yard?

Answer: The *perimeter* is _____ meters

fence

} *3 meters long*
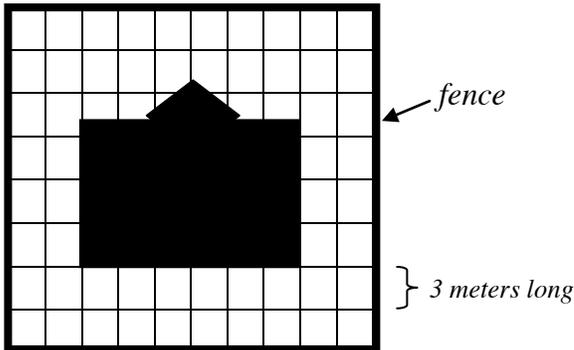
☺ ☺ 6. Jada's parents pay her $5.00 an hour for babysitting her little sister. Fill in the table below to see how much Jada will earn if she babysits for 6 hours.

Hours Worked	1	2	3	4	5	6
Money Earned	$5	$10				

Name: _____

☺ ☺ ☺ ☺ 1. Nick left for his family vacation on Thursday, May 10th. They traveled for two weeks.

May						
M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

a. How many days make up two weeks? _____

b. On what day did Nick return home? _____

c. What fraction of a month was the family away?   _____

d. Put your finger on 3 days after May 1st. Move your finger down 1 row. Move 2 days to the right. Go down 1 row. Move 4 days to the left. What is the date your finger ends up on? _____

☺ ☺   2. The pictures below show two different ways to think of multiplication.
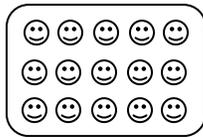
3 rows with 5 in each row
$3 \times 5 = 15$
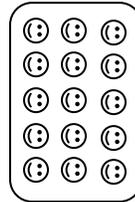
5 rows with 3 in each row
$5 \times 3 = 15$

Draw your own picture on an index card or sheet of paper, then turn it to show $2 \times 7 = 14$ and $7 \times 2 = 14$. Then draw another one to show that $4 \times 6 = 24$, and that $6 \times 4 = 24$. Explain to your parent what you are showing.

☺   3.

Tampa population:	382,060
St. Petersburg population:	249,079

To the nearest hundred thousand, about what is the population of the Tampa Bay area, which includes both Tampa and St. Petersburg?

Answer: _____

☺ ☺ ☺ 4. Jackie is having a birthday party. She has 14 friends spending the night. How many pizzas would she need to buy if each child, including herself, eats two slices and each pizza has 8 slices? _____ pizzas
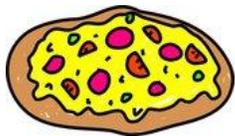
Explain how you got your answer, and what might happen to any leftover pieces:

☺ ☺ ☺ 5. Ana bought a bag of popcorn kernels. She needed to fill the 1-cup cans below with kernels, but she only had a ¼ measuring cup and a ⅓ measuring cup. Show two different ways she can measure the popcorn kernels using the ¼ and the ⅓ measuring cup. Use the containers to show your answer and then explain.
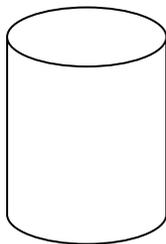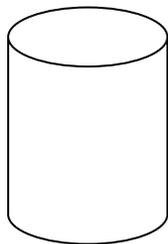
a. How many ⅓'s will she need to make one cup? _____

b. How many ¼'s will she need to make one cup?_____

c. Which is more, ⅓ cup or ¼ cup?_____ How do you know?

☺ ☺ ☺ 6. Jamie made a dozen cookies to share with Chris. Chris invited two new friends over to share the cookies.

a. How many cookies will each boy receive if they all share equally? _____

b. If Jamie also invited two new friends, then how many cookies would each boy receive? ____

c. If Chris and Jamie had not invited any other friends over, how many cookies would each boy get? _____