

Dear Parents,

Here is what your child is learning in Grade 4, Unit 5 along with some specific ways you can help.



WAYS PARENTS CAN HELP

- Explore concepts of geometry and measurement. Ask questions such as, “How many minutes will have passed when the minute hand rotates $\frac{1}{4}$ turn clockwise?”
- Determine the area covered by a rectangular region such as an area rug or floor tiles.
- While cooking with your child, discuss measurement units. Ask, “Which is more, one liter or one milliliter? How many cups are in one quart?”
- Compare the net weight or capacity found on various food product labels.
- Look for designs in wallpaper, wrapping paper, fabrics, or other objects that show translations, reflections, or rotations.



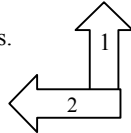
GEOMETRY

Students need to:

- Identify translations, reflections, and rotations of figures.

Example:

An arrow is shown in two different positions.



Write a fraction to describe the clockwise rotation of the arrow from position 1 to position 2.

Sample response: $\frac{3}{4}$

A rectangular rug 4 ft. wide and 6 ft. long covers an area of 24 sq. feet since $4 \times 6 = 24$.

MEASUREMENT

Students need to:

- Select appropriate attributes and use standard units to solve measurement problems.
- Develop and use formulas to solve problems involving area and perimeter of rectangles.
- Solve problems involving area, perimeter, volume, and elapsed time.

Examples:

1. A one-pound package of butter contains 4 sticks of equal weight. How many ounces does each stick weigh?

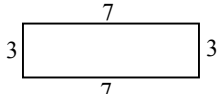
Sample response: 4 ounces

2. The perimeters of a square and a rectangle are each 20 inches. The length of the rectangle is 2 inches longer than a side of the square. What is the area of the rectangle? Explain your thinking. Use numbers, pictures, or words in your explanation.

Sample response:

21 square inches

Each side of the square was 5 inches. $5 + 5 + 5 + 5 = 20$. The length of the rectangle is 2 inches more than that, or 7 inches. The width of the rectangle is 3 inches as shown in the figure below.



To find the area, I used the formula $A = l \times w$, and multiplied 7×3 to get an area of 21 square inches.

3. The Kim family took a car trip to Williamsburg. They left home at 10:30 A.M. and arrived in Williamsburg at 2:00 P.M. How long did the trip take? Use what you know about elapsed time to explain how you determined your answer. Use words and/or numbers in your explanation.

Sample response:

$3\frac{1}{2}$ hours

I counted up from 10:30 to 11:30 (1 hour); 11:30 to 12:30 (1 hour); 12:30 to 1:30 (1 hour); and 1:30-2:00 ($\frac{1}{2}$ hour). 1 hour + 1 hour + 1 hour + $\frac{1}{2}$ hour is $3\frac{1}{2}$ hours total for the trip.

NUMBER RELATIONSHIPS AND COMPUTATION

Students need to:

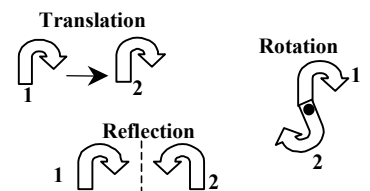
- Identify situations that are represented by negative numbers.

Example:

What situation could be represented using a negative number?

Sample responses:

Moving backward in a board game, a drop in temperature, or a loss of yards in a football game are all examples of student responses.



For additional activities, visit www.ed.gov/nubs/parents/Math