



Dear Parents,

Over the next few weeks, we will be learning about **measurement** in math! The information below will help you to support your child as they learn these exciting, yet important fourth grade math skills. See reverse side for conversion tables!

The GOAL:

By the end of the unit, your child should be able to **convert measurements, represent time and calculate elapsed time, and find the area and perimeter within real-world situations.**

Standard (Customary) Units

Help your child learn about Standard Units:

You can convert one standard unit of measurement to another by multiplying or dividing.

Multiply to change from larger to smaller units.

For example:

If I want to convert 4 feet to inches.

Step 1: Multiply to change from larger to smaller.

Feet \longrightarrow Inches
Larger \longrightarrow Smaller

Step 2: Think:

1 ft. = 12 in.
So 4 ft. = (4×12)

Step 3: Multiply:

$4 \times 12 = 48$ in.

Metric Units

Help your child learn about Metric Units:

You can convert one metric unit of measurement to another by multiplying or dividing.

Multiply to change from larger to smaller units.

For example:

If I want to convert 2 meters to centimeters.

Step 1: Multiply to change from larger to smaller.

Meters \longrightarrow Centimeters

Larger \longrightarrow Smaller

Step 2: Think:

1 m = 100 cm

So 2 m = (2×100)

Step 3: Multiply:

$2 \times 100 = 200$ cm

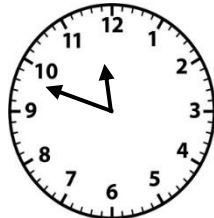
Calculate elapsed time

This clock reads 8:25.

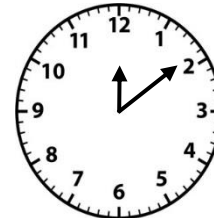


What time will it be in 33 minutes?

This clock reads 11:48.



This clock reads 12:09.

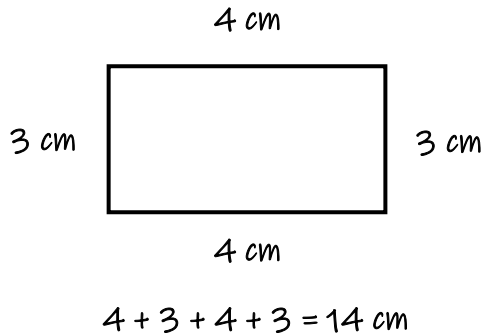


How much time has passed?



Perimeter

Perimeter is the distance around the outside of a shape. In the below rectangle, the perimeter is 14 centimeters.

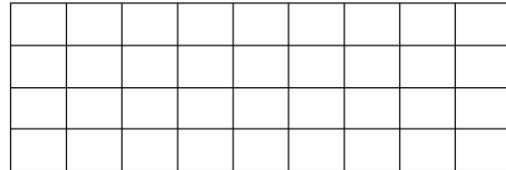


Area

Area is the amount of space inside a shape or figure. You can use a formula to find the area of a shape. The formula to find the area of the below shape is:

$$\text{length (l)} \times \text{width (w)}$$

$$(A = l \times w)$$



(each square represents one square unit)

The area of this rectangle is:
 $9 \times 3 = 27$ square units.

Grade 4 Math: PA Core Math Standards in Unit 5

CC.2.4.4.A.1: Solve problems involving measurement and conversions from a larger unit to a smaller unit.

-- KEY MATH VOCABULARY --

Conversion: To change from one unit of measure to another unit of measure.

Area: The measure, in square units, of the inside part of a shape or figure.

Perimeter: The distance around a closed 2-dimensional figure or shape.

Square Unit: A square with each side 1 unit in length. The area of a **unit** square is 1 square unit.

-- HOW YOU CAN HELP AT HOME --

- Put the below conversions on notecards and practice them each night.
- Allow your child to help with tasks when conversions may be used (measurement and time).
- Use a ruler or a tape measure to find the perimeter of a picture frame, book, bedroom, fence, etc.)
- Find the area of a garden, the floor of a room, a fenced in yard using an appropriate tool.

Standard (Customary)

Conversions

1 mile (mi.) = 1,760 yards (yd.)
1 mile (mi.) = 5,280 feet (ft.)
1 yard (yd.) = 3 feet (ft.)
1 foot = 12 inches (in.)
1 ton (T) = 2,000 pounds (lb.)
1 pounds (lb.) = 16 ounces (oz.)
1 gallon (gal.) = 4 quarts (lb.)
1 quart (qt.) = 2 pints (pt.)
1 pint (pt.) = 2 cups (c.)
1 cup (c.) = 8 fluid ounces (oz.)

Metric Conversions

1 kilometer (km) = 1,000 (m)
1 meter (m) = 100 centimeter (cm)
1 centimeter = 10 millimeters (mm)
1 kilogram (kg) = 1,000 grams (g)
1 liter (L) = 1,000 milliliters (mL)

Time Conversions

1 century = 10 decades
1 decade = 10 years (yr)
1 year (yr) = 12 months (mo)
1 year (yr) = 52 weeks (wk)
1 year (yr) = 365 days
1 week (wk) = 7 days
1 day = 24 hours (hr)
1 hour (hr) = 60 minutes (min)
1 minutes (min) = 60 seconds (sec.)