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## Measuring Length with Nonstandard Units

I. One orange rod is as long as

2 yellow rods. How many yellow rods are as long as 2 orange rods?
$\qquad$
yellow rods
2. One paper clip is as long as 4 connecting cubes. How many cubes are as long as 3 paper clips?
$\qquad$
3. One pencil is as long as 5 paper
clips. How many paper clips
are as long as 10 pencils?
paper clips
4. One eraser is as long as 4 beads.

How many beads are as long as
6 erasers?
5. Kai's watch is $1 \frac{1}{2}$ pencils long.

One pencil is as long as
5 paper clips. How many paper
clips are as long as Kai's watch?

## Measuring to the Nearest Inch

Complete the table. Estimate. Then use a ruler to measure each line to the nearest inch.
A


| Line | Estimate | Measure |
| :---: | :---: | :---: |
| A | about ___ inches | about ___ inches |
| B | about ___ inches | about ___ inches |
| C | about ___ inches | about ___ inch |
| D | about ___ inches | about ___ inches |
| E | about ___ inches | about ___ inches |
| F | about ___ inches | about ___ inches |

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## Most Reasonable Estimates

Which is the most reasonable estimate? Circle it.
I. Tyra plants a rose bush. About how tall is the bush?
about 2 feet
about 20 feet
about 50 feet
3. Jake's mother buys a new sofa. About how long is it?
about 6 inches
about 6 feet
about 6 yards
2. Chris has a new puppy. About how long is the new puppy?
about 8 inches
about 80 inches
about 8 feet
4. Beth measures the length of her bracelet. About how long is it?
about 7 inches
about 7 feet
about 7 yards
5. Anna's baby sister is 4 years old. About how tall is Anna's sister?
about 3 inches
about 3 feet
about 3 yards
6. Alex measures the length of the front of his house. About how long is it?
about 2 yards
about I yard
about I5 yards

## Relating Inches, Feet, and Yards

Complete the tables.
Use a calculator to help you.
I.

| Number of Feet | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Inches | 60 | 72 | 84 |  |  |  |  |

2. 

| Number of Yards | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Feet | 18 | 21 | 24 |  |  |  |  |

3. 

| Number of Feet | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Inches | 144 | 156 | 168 |  |  |  |  |

4. 

| Number of Yards | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Inches | 36 | 72 | 108 |  |  |  |  |

5. 

| Number of Feet | 5 | 10 | 15 | 20 | 25 | 30 | 35 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Inches | 60 | 120 | 180 |  |  |  |  |

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## Using Fractions to Measure Length

I. Peter connected 4 toy train cars. Each train car is $1 \frac{1}{2}$ inches long. How long is the train of cars? $\qquad$ inches

2. How many cars are in a train that is I2 inches long? Each train car is $1 \frac{1}{2}$ inches long.
_ cars
4. Jon connected 5 train cars.

Each car is $2 \frac{1}{2}$ inches long. How long is the train?
6. A red train has 4 cars that are each 2 inches long. A blue train has 6 cars that are each $1 \frac{1}{2}$ inches long. Which color train is longer?
3. How many cars are in a train that is 2 feet long? Each train car is $1 \frac{1}{2}$ inches long.
$\qquad$ cars
5. Lin connected 2 cars that are each $2 \frac{1}{2}$ inches long and 2 cars that are each $1 \frac{1}{2}$ inches long. How long is her train?
$\qquad$
7. Jay and Mike made trains with cars that are each $1 \frac{1}{2}$ inches long. Jay's train has 15 cars. Mike's train is 2 feet long. Who has the longer train?
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## Measuring to the Nearest Centimeter

Angie has a set of dominoes. All of the dominoes are the same length.
I. Angie places 3 dominoes in a line. The line is 15 centimeters long. What is the length of each domino?
$\qquad$ centimeters
2. How many dominoes are in a line that is 30 centimeters long?
$\qquad$ dominoes
3. What is the length of a line of 8 dominoes?
$\qquad$

Brian and Jan have dominoes that are a different length than Angie's dominoes.
4. Jan places 5 dominoes in a line. The line is 30 centimeters long. What is the length of each domino?
$\qquad$ centimeters
5. How many dominoes are in a line that is I8 centimeter long?
$\qquad$ dominoes
6. What is the length of a line of 8 dominoes?
$\qquad$
$\qquad$

## Measuring in Centimeters and Meters

Choose a word from the box to complete each sentence. Write the word in the puzzle.


Across
I. One $\qquad$ is shorter than one inch.
2. A $\qquad$ is used to measure longer lengths.
3. Centimeters and meters are metric $\qquad$ of length.

Down
4. The length of a paper clip is a benchmark for an $\qquad$ _.
5. When you do not need an exact answer, you can $\qquad$ -.
6. A baseball $\qquad$ is about I yard long.

