

## MEASURING IN INCHES

You will need a ruler, or you may cut out and use the ruler on page 3.

Look at the rule. There are many little lines on the ruler. But only 12 of these lines are numbered. The numbered lines are the inch lines. It is one inch from the end of the ruler to the first numbered line. It is one inch from one numbered line to another numbered line.



Measure these lines:

Answer



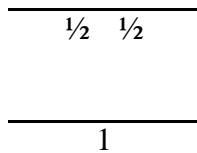
1"



3"

5"

Look at the ruler.



From the left end of the ruler to 1 is one inch. This inch is divided into two equal parts by a line. "Equal" means that the parts are the same size. When anything is divided into two equal parts, it is divided in half. So, an inch can be divided into two half inches. Each one of the two equal parts is a half inch. In numbers, we write this as  $\frac{1}{2}$  inch.

$$\frac{1}{2} \text{ inch} + \frac{1}{2} \text{ inch} = 1 \text{ inch}$$

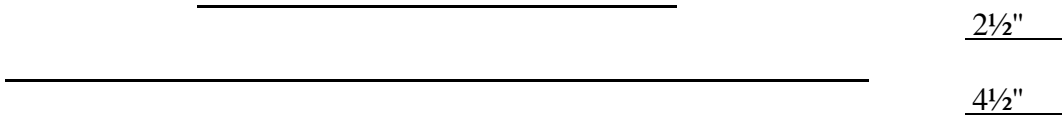
We use half inches to measure something smaller than a whole inch.

Measure these lines:

Answer



$\frac{1}{2}$ "



Look at the ruler. It shows a whole inch from the left end of the ruler to 1. It shows this whole inch divided into two equal parts. These two equal parts measure a half inch each. But each half inch is also divided up into two equal parts. So, there are four equal parts to a whole inch, too. Each of these four equal parts is one quarter of an inch. (Sometimes we say one fourth of an inch.) In numbers we write this as  $\frac{1}{4}$  inch.

$$\frac{\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}}{\frac{1}{2} + \frac{1}{2}} = 1$$

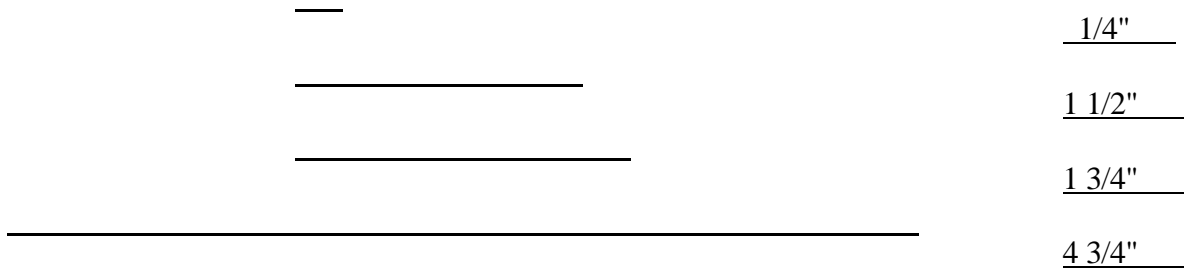
$$\frac{1}{2}'' + \frac{1}{2}'' = 1''$$

$$\frac{1}{4}'' + \frac{1}{4}'' = \frac{1}{2}''$$

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

Count the quarter inches from the left end of the ruler to 1. We could read "one-quarter inch, two-quarters inches, three-quarters inches and four-quarters inches." But this is not done. We say "one-quarter inch, one-half inch, three-quarters inches, and one inch." In numbers and marks, this is  $\frac{1}{4}$ ",  $\frac{1}{2}$ ",  $\frac{3}{4}$ ", and 1".

Measure these lines:





3 1/2"

2 1/2"

Sometimes the things we measure are not exactly as long as the inch, half inch, quarter inch or one eighth inch lines on the ruler. When measuring for the External Diploma Program, "round off" to the nearest quarter inch. That means that the answer will be the closest quarter inch mark.

Practice by measuring these lines:

Answer



1. \_\_\_\_



2. \_\_\_\_



3. \_\_\_\_



4. \_\_\_\_



5. \_\_\_\_



6. \_\_\_\_

Answers ( " is the symbol for inches):

1. 2"
2. 4 1/2"
3. 4 3/4"
4. 3 1/4"
5. 1 3/4"
6. 2 1/4"