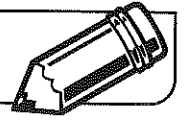


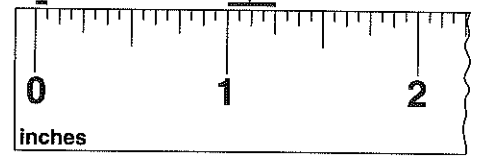
LESSON
3•5

Reading a Ruler

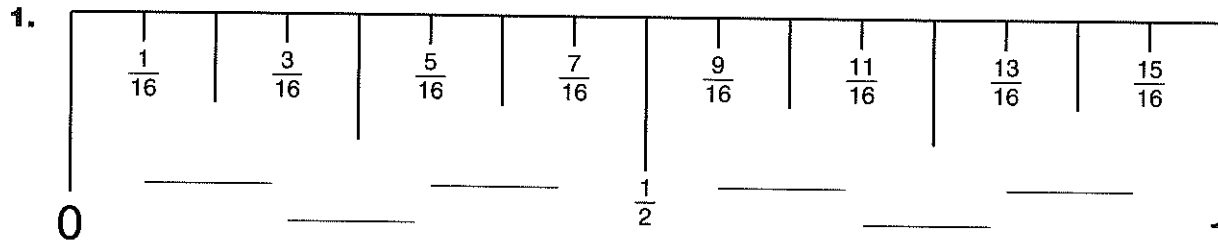


On rulers, inches are usually divided into halves, quarters, eighths, and sixteenths with marks that are different sizes. There are different ways to name a length. Look at the ruler to the right and give two other names for $\frac{1}{2}$ inch.

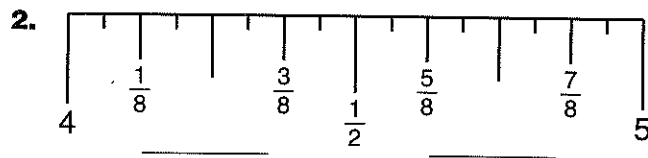
This space is $\frac{1}{16}$ in. long. This space is $\frac{4}{16}$ in. or $\frac{1}{4}$ in. long.



Fill in the blank spaces on each ruler. Identify these marks on your ruler.



Scale: 6 inches represents 1 inch



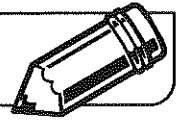
Scale: 3 inches represents 1 inch

Use your ruler to measure the line segments. Give two names for each line segment.

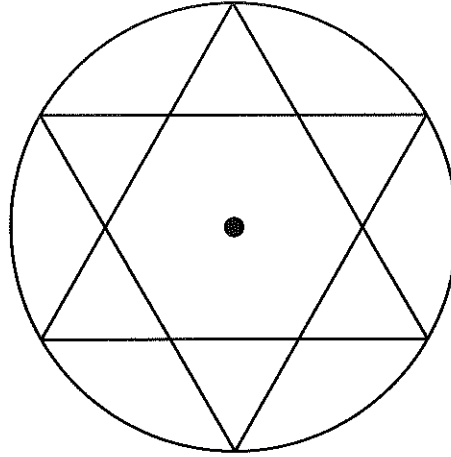


Use the ruler pictured to determine the length of the line segment. Give two names for the length of the line segment.

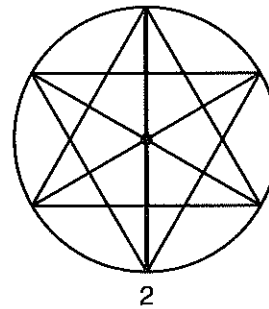
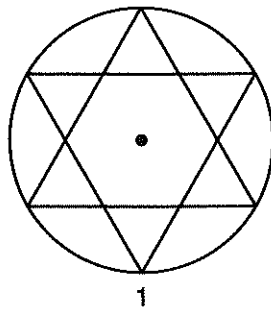


LESSON
3•5
Designs with a Compass and a Straightedge


If you know how to inscribe a hexagon in a circle, you can make a 6-pointed star, or **hexagram**, inside a circle.



1. On a separate piece of paper, make a 6-pointed star. (*Hint: Mark the circle as you do for a hexagon. Connect every other mark.*)
2. Divide the angles of your star in half as shown below.



3. Color your design in some pattern.
4. Reproduce the following designs, using a compass and a straightedge to draw hexagons and hexagrams. Then find patterns and color them. (*Hint: Use a pencil and draw lightly so you can erase unwanted lines.*)

