NAME_____

Module 12 **Attributes and Tools**
Lesson 4 **Measurement: Distance**

Lesson Notes 12.4

Lesson Objectives

- Solve real-world problems involving distance.
- Draw and measure distance to the nearest cm and $\frac{1}{4}$ inch, the nearest mm and $\frac{1}{8}$ inch, and the nearest mm and $\frac{1}{16}$ inch accurately.

Subtopic 1 Draw and Measure Customary Distance/Length

1 Find the diameter of a nickel to the nearest quarter inch and to the nearest sixteenth inch.

Nearest quarter inch: $\frac{3}{4}$ **in.**

Nearest sixteenth inch: $\frac{13}{16}$ **in.**

2 Draw a line segment that is $4\frac{5}{16}$ inches long.

---

3 Charlotte measured an $8\frac{7}{16}$ inch feather. Find its length to the nearest eighth inch.

$8\frac{6}{16}$ in. $8\frac{7}{16}$ in. $8\frac{8}{16}$ in.
$8\frac{3}{8}$ in. $8\frac{7}{16}$ in. $8\frac{4}{8}$ in.

$8\frac{4}{8}$ in.

Subtopic 2 Draw and Measure Metric Distance/Length

4 Find the length of the battery to the nearest millimeter and centimeter.

Nearest mm: 4.7 cm or 47 mm
Nearest cm: 5 cm

5 Draw a segment 5.8 centimeters long.

Subtopic 3 Problem Solving with Customary Distances

6 To make a post for a birdhouse, Ivan joined two pieces of wood – one four feet 10 inches long and another three feet seven inches long. How high is the post?

4 ft 10 in.
+ 3 ft 7 in.
7 ft 17 in.
7 ft (1 ft 5 in.)
8 ft 5 in.

The post is 8 ft 5 in. high.

Subtopic 4 Problem Solving with Metric Distances

7 Samantha ran 800 meters five times. Jennifer ran three kilometers. Who ran farther?

5×800 m = 4,000 m = 4 km
4 km > 3 km

Samantha ran farther.