LESSON MAKER PRO

Measure It Close

Choose the right unit and record the nearest length.

GRADE 4 · 4.MG.1.b.i

4.MG.1.b.i "Estimate and measure: length of an object to the nearest U.S. Customary unit (1/2 inch, 1/4 inch, 1/8 inch, foot, yard) and nearest metric unit (millimeter, centimeter, or meter);"

NAME _____ DATE _____

CHOOSE AND ROUND

Start by estimating a unit that fits the object. Use millimeters for tiny lengths, centimeters for medium lengths, and meters for long lengths. For U.S. Customary measures, use inches or fractional inches for small objects, feet for furniture-sized lengths, and yards for larger lengths, then choose the closest marked amount.

WORKED EXAMPLE

A poster is 74.6 cm wide. Record its width to the nearest centimeter.

1. The two nearest whole-centimeter marks are 74 cm and 75 cm.
2. 74.6 cm is closer to 75 cm than to 74 cm.
3. Record the measurement in centimeters.

Answer: 75 cm

PRACTICE 6 problems

1 A skateboard deck measures 28 3/16 inches long. Record its length to the nearest 1/4 inch.

ANSWER _____

2 A bookmark measures 15 11/32 inches long. Record its length to the nearest 1/8 inch.

ANSWER _____

3 A bench measures 53 inches long. Record its length to the nearest foot.

ANSWER _____

4 A classroom banner measures 101 inches long. Record its length to the nearest yard.

ANSWER _____

5 A beetle measures 38.7 mm long. Record its length to the nearest millimeter.

ANSWER _____

6 An aquarium stand measures 2.4 m tall. Record its height to the nearest meter.

ANSWER _____

APPLY IT Show your work

1 At the makers club, Eli measures a wire as 19 9/16 inches long. He must record its length to the nearest 1/2 inch. What should he write?

WORK SPACE

ANSWER _____

2 In the school garden, Sam measures a bean plant as 1.62 meters tall. Record the plant's height to the nearest meter.

WORK SPACE

ANSWER _____

3 Teacher: provide a ruler marked in centimeters and eighth-inches, a tape measure, a pencil, a book, and access to a table. Before measuring, estimate the pencil length in centimeters, book width to the nearest 1/4 inch, and table length in meters. Record estimates first. Then align each tool at zero, measure the same lengths, and record to the specified units. On a separate table, label object, estimate, measured length, and difference. Explain which estimate was closest.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A model train measures 12 13/32 inches long. Record its length to the nearest 1/8 inch and to the nearest 1/4 inch. Explain why the two recordings are different.

WORK SPACE AND ANSWER

ANSWER KEY

Measure It Close

GRADE 4 · 4.MG.1.b.i

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A skateboard deck measures 28 3/16 inches long. Record its length to the nearest 1/4 inch.	**28 1/4 inches**
2	A bookmark measures 15 11/32 inches long. Record its length to the nearest 1/8 inch.	**15 3/8 inches**
3	A bench measures 53 inches long. Record its length to the nearest foot.	**4 feet**
4	A classroom banner measures 101 inches long. Record its length to the nearest yard.	**3 yards**
5	A beetle measures 38.7 mm long. Record its length to the nearest millimeter.	**39 mm**
6	An aquarium stand measures 2.4 m tall. Record its height to the nearest meter.	**2m**

PART 2 · APPLY IT

1. **19 1/2 inches** The half-inch marks around 19 9/16 inches are 19 1/2 inches and 20 inches. 19 9/16 inches is closer to 19 1/2 inches.
2. **2 meters** 1.62 meters is between 1 meter and 2 meters. It is closer to 2 meters.
3. **Measurements vary with actual objects; record and compare three real estimates and measurements with correct units.** Observe estimates recorded before tool use. Check zero alignment and endpoints. Check pencil rounding to the nearest centimeter, book width to the nearest 1/4 inch (choose the nearer quarter-inch mark), and table length to the nearest meter. Calculate absolute differences in the same units. Compare estimate closeness using one common unit or explain each comparison separately; do not compare bare numbers in different units.

CHALLENGE

Nearest 1/8 inch: 12 3/8 inches. Nearest 1/4 inch: 12 1/2 inches. The measurement is closer to 12 3/8 when comparing eighths, but it is closer to 12 1/2 when comparing the wider quarter-inch marks.

Accept equivalent fraction forms, such as 12 4/8 inches for 12 1/2 inches. Accept standard unit abbreviations, including ft., yd., mm, cm, and m. For Apply 3, actual tool use and recorded estimates are required. Support access and reading the ruler; copied supplied numerical lengths do not complete this task.