

Convert It Down

Change larger measurement units into smaller units.

GRADE 4 • NY-4.MD.1

NY-4.MD.1 "Know relative sizes of measurement units: ft., in.; km, m, cm Know the conversion factor and use it to convert measurements in a larger unit in terms of a smaller unit: ft., in.; km, m, cm; hr., min., sec. Given the conversion factor..."

NAME _____

DATE _____

MULTIPLY TO CONVERT

When you change from a larger unit to a smaller unit, multiply. Use these unit facts: 1 foot = 12 inches, 1 kilometer = 1,000 meters, 1 meter = 100 centimeters, 1 hour = 60 minutes, and 1 minute = 60 seconds.

WORKED EXAMPLE

Convert 8 ft to inches.

- 1 ft = 12 in.
- Multiply 8×12 .
- $8 \times 12 = 96$.
- Write the smaller unit.

Answer: 96 in

PRACTICE 6 problems

1 Convert 5 ft to inches.

ANSWER _____

2 Convert 3 km to meters.

ANSWER _____

3 Convert 9 m to centimeters.

ANSWER _____

4 Convert 5 hr to minutes.

ANSWER _____

5 Convert 6 min to seconds.

ANSWER _____

6 Convert 4 km to centimeters.

ANSWER _____

APPLY IT

Show your work

- 1** At game design club, Mateo makes an animation that lasts 3 min 20 sec. How many seconds does the animation last?

WORK SPACE

ANSWER _____

- 2** A family bike ride is 2 km 450 m long. How many meters is the ride?

WORK SPACE

ANSWER _____

CHALLENGE

One step up

Complete the table. Then tell which row takes two unit changes if you use the unit facts in the concept box.

CONVERSION TABLE

Measurement	Equivalent Smaller Unit
6 ft	___ in
3 m	___ cm
2 km	___ cm

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Convert 5 ft to inches.	60 in
2	Convert 3 km to meters.	3,000 m
3	Convert 9 m to centimeters.	900 cm
4	Convert 5 hr to minutes.	300 min
5	Convert 6 min to seconds.	360 sec
6	Convert 4 km to centimeters.	400,000 cm

PART 2 • APPLY IT

1. **200 sec** Convert 3 minutes to 180 seconds. Add the extra 20 seconds.
2. **2,450 m** Convert 2 kilometers to 2,000 meters. Add 450 meters.

CHALLENGE

6 ft = 72 in; 3 m = 300 cm; 2 km = 200,000 cm. The 2 km row takes two unit changes: km to m, then m to cm.

Accept correct number-and-unit equivalents, including commas omitted in large numbers. For the challenge explanation, accept any clear statement that kilometers are changed to meters and then meters are changed to centimeters.