

Length Detective

Convert, compare, and solve with length.

GRADE 4 • MA.4.M.1

MA.4.M.1 "Measure the length of objects and solve problems involving measurement."

NAME _____

DATE _____

USE MATCHING UNITS

To change feet to inches, multiply by 12 because 1 foot equals 12 inches. To add or subtract lengths, make sure the lengths use the same unit first.

WORKED EXAMPLE

A banner is 4 ft 5 in long. How many inches long is it?

1. $4 \text{ ft} \times 12 \text{ in per ft} = 48 \text{ in}$

2. $48 \text{ in} + 5 \text{ in} = 53 \text{ in}$

3. The banner is 53 in long.

Answer: 53 in

PRACTICE 6 problems

1 How many inches are in 6 ft?

ANSWER _____

2 84 in = ____ ft

ANSWER _____

3 9 m = ____ cm

ANSWER _____

4 325 cm = ____ m ____ cm

ANSWER _____

5 2 ft 9 in = ____ in

ANSWER _____

6 A rope is 15 ft long. You cut off 6 ft. How many feet of rope remain?

ANSWER _____

APPLY IT Show your work

- 1** Two tables for a game display stand end to end. One table is 8 ft 6 in long, and the other is 2 ft 7 in long. How long are the tables together?

WORK SPACE

ANSWER _____

- 2** A fitness tracker shows that Jayden walked 350 m before school and 275 m after school. How far did Jayden walk altogether?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A nature trail is 2 km 450 m long. A hiker walks 875 m, then walks another 960 m. How many meters are left to walk?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	How many inches are in 6 ft?	72 in
2	84 in = ____ ft	7 ft
3	9 m = ____ cm	900 cm
4	325 cm = ____ m ____ cm	3 m 25 cm
5	2 ft 9 in = ____ in	33 in
6	A rope is 15 ft long. You cut off 6 ft. How many feet of rope remain?	9 ft

PART 2 • APPLY IT

1. **11 ft 1 in** Add the inches: 6 in + 7 in = 13 in, or 1 ft 1 in. Add the feet: 8 ft + 2 ft + 1 ft = 11 ft.
2. **625 m** Both distances are measured in meters. Add 350 m + 275 m = 625 m.

CHALLENGE

615 m

Accept equivalent correct unit forms, such as 72 inches for 72 in. For the challenge, students should rename 2 km 450 m as 2,450 m before subtracting the total distance walked.