Name _____

Practice Video Tools Games

Additional
Practice 13-4
Equivalence with
Metric Units of
Length

Another Look!

Jasmine finished 9 centimeters of the scarf she is knitting. Manuella finished 108 millimeters of her scarf. How much longer is Manuella's scarf than Jasmine's?

To change from a larger unit like centimeters to a smaller unit like millimeters, multiply.

Step 1

Convert 9 centimeters to millimeters.

1 centimeter = 10 millimeters

$9 \times 10 = 90$ millimeters

↑   ↑
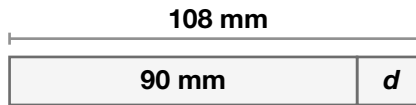Number of   Millimeters
centimeters per centimeter

9 centimeters = 90 millimeters

Step 2

Find the difference, d.

108 mm

90 mm	d

$108 - 90 = d$

$d = 18$

Manuella's scarf is 18 millimeters longer than Jasmine's scarf.

In **1–3**, tell what metric unit you would use to measure each.

1. Height of a tree

2. The width of a kernel of corn

3. The length of your arm

For **4–7**, convert each unit.

4. 7 meters = _____ centimeters

5. 8 kilometers = _____ meters

6. 65 centimeters = _____ millimeters

7. 2 meters = _____ centimeters

For **8–9**, complete each table.

8.

Kilometers	Meters
1	1,000
2	
3	

9.

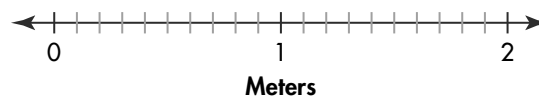| Meters	Centimeters
1	100
2	
3	

10. Brittney bought two bottles of shampoo like the one shown and paid $0.52 tax. How much did she spend? Use bills and coins to solve.

11. Brittney paid for the shampoo with a $20 bill. How much change did Brittney get back? Use bills and coins to solve.

$2.88

$2.88

DAILY MOISTURE

SHAMPOO

For All Hair
23.7 FL OZ.

12. Jason is 1.4 meters tall. His brother is 0.9 meter tall. Who is taller? Show each height on the linear model. Explain.

Meters

13. Martha had 2.35 centimeters of her hair cut off. Neil had 2.53 centimeters cut. Who had more hair cut off? Explain.

14. A spider traveled 3 meters in one minute. How many centimeters did it travel?

15. Be Precise The ceiling of Mr. Vega's classroom is 3 meters high. The ceiling in the hall is 315 centimeters high. How much taller is the ceiling in the hall than in the classroom?

16. Higher Order Thinking A yellow ribbon is 56 centimeters long. It is twice as long as a green ribbon. A brown ribbon is 4 times as long as the green ribbon. What is the length of the brown ribbon?

Assessment Practice

17. Select all the true statements. 4.MD.1.1

- ☐ 1,000 kilometers = 100 meters
- ☐ 11 meters = 110 centimeters
- ☐ 17 centimeters = 170 millimeters
- ☐ 5 meters = 500 millimeters
- ☐ 5 kilometers = 5,000 meters

18. Select all the true comparisons. 4.MD.1.1

- ☐ 5 meters $<$ 5,200 millimeters
- ☐ 18 kilometers $<$ 1,800 meters
- ☐ 21 centimeters $>$ 200 millimeters
- ☐ 7 meters $<$ 70 centimeters
- ☐ 6 meters $>$ 6,200 millimeters