

Name: Class:

Compare and convert metric units of length

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|--|------------------------------|
| - 10 millimeters = 1 centimeter | - 100 centimeters = 1 meter |
| - 10 centimeters = 1 decimeter = 100 millimeters | = 1,000 millimeters |
| - 10 decimeters = 1 meter | - 1,000 meters = 1 kilometer |

Convert and compare the following metric units of length.

a. Which is bigger, 234 millimeters or 1 meter?

b. Convert 50 kilometers to meters.

c. Convert 755 centimeters to decimeters.

d. Which is larger, 10 kilometers or 10,000 meters?



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Compare and convert metric units of length

- 10 millimeters = 1 centimeter

- 100 centimeters = 1 meter

- 10 centimeters = 1 decimeter = 100 millimeters

= 1,000 millimeters

- 10 decimeters = 1 meter

- 1,000 meters = 1 kilometer

Convert and compare the following metric units of length.

a. Which is bigger, 234 millimeters or 1 meter?

First of all, let's convert to same metric unit then compare.

Let's convert millimeters to meters.

if $1,000\text{mm} = 1\text{m}$,

$$\text{then } 234 \text{ mm} = \frac{234 \times 1}{1,000}$$

$$= 0.234 \text{ meters}$$

Since 0.234 meters is less than 1 meter,

it implies that 1 meters is bigger than 234 millimeters.

b. Convert 50 kilometers to meters.

If 1 kilometer = 1,000 meters,

$$\text{then } 50 \text{ kilometers} = \frac{1,000 \times 50}{1}$$

$$= 50,000 \text{ meters}$$

So, 50 kilometers = 50,000 meters

c. Convert 755 centimeters to decimeters.

If 10 centimeters = 1 decimeter,

$$\text{then } 755 \text{ centimeters} = \frac{755 \times 1}{10}$$

$$= 75.5 \text{ decimeters}$$

So, 755 centimeters = 75.5 decimeters.

d. Which is larger, 10 kilometers or 10,000 meters?

First of all, let's convert to same metric unit then compare.

Let's convert kilometers to meters.

If 1 kilometer = 1,000 meters

$$\text{then } 10 \text{ kilometers} = \frac{1,000 \times 10}{1}$$

$$= 10,000 \text{ meters}$$

Now, let's compare,

Since 10,000 meters is equal to 10,000 meters,

it implies that 10 kilometers is equal to 10 000 meters.

