

# UNIT CONVERSION

## ENGLISH SYSTEM CONVERSION

Converting the unit of measurement from English-to-English System of Measurement.

*Example:*

### **Large unit to small unit**

$$1. \text{ 6 feet} = \underline{\hspace{2cm}} \text{ inches}$$

Since

$$1 \text{ foot} = 12 \text{ inches}$$

Perform the indicated operation.

➤ **Cancellation of similar unit**

$$\frac{\cancel{6} \text{ feet}}{\cancel{1} \text{ foot}} = \frac{12 \text{ inches}}{1} = 12 \text{ inches}$$

➤ **Cross multiply**

$$\frac{6 \times 12 \text{ inches}}{1} = \frac{72 \text{ inches}}{1} = 72 \text{ inches}$$

**Therefore: 6 feet = 72 inches**

## Small unit to large unit

2. 120 inches = \_\_\_\_\_ yard

Since

1 yard = 36 inches

Perform the indicated operation.

➤ **Cancellation of similar unit**

$$\frac{120 \cancel{\text{inches}}}{36 \cancel{\text{inches}}} = 1 \text{ yard}$$

➤ **Cross multiply**

$$\frac{120 \times 1 \text{ yard}}{36} = \frac{120 \text{ yard}}{36} = 33.33 \text{ yard}$$

**Therefore: 120 inches is 33.33 yard**

# METRIC SYSTEM CONVERSION

Converting the unit of measurement from Metric-to-Metric System of Measurement.

## Large unit to small unit

1. 25 meters = \_\_\_\_\_ centimeter

Since

1 meter = 100 centimeter

Perform the indicated operation.

### ➤ **Cancellation of similar unit**

25 ~~meters~~ = 100 centimeters

1 ~~meter~~

### ➤ **Cross multiply**

25 x 100 centimeters = 2500 centimeter = 2500 centimeters

1

1

**Therefore: 25 meters is 2500 centimeter**

## Small unit to large unit

2. 1,234 millimeter = \_\_\_\_\_ m

Since

$$1,000 \text{ millimeter} = 1 \text{ meter}$$

Perform the indicated operation.

➤ **Cancellation of similar unit**

$$\frac{1,234 \text{ millimeter}}{1,000} = 1 \text{ meter}$$

$$\frac{1,000 \text{ millimeter}}{1,000}$$

➤ **Cross multiply**

$$\frac{1,234 \times 1 \text{ meter}}{1,000} = \frac{1,234 \text{ meter}}{1,000} = 1.234 \text{ meter}$$

**Therefore: 1,234 millimeter is 1.234 meter**

## **ENGLISH TO METRIC CONVERSION AND VISE VERSA**

Converting the unit of measurement from English to Metric System of Measurement.

### **Large unit to small unit**

1. 6 feet = \_\_\_\_\_ centimeter

Since

1 foot = 30.34 centimeter

Perform the indicated operation.

- Cancellation of similar unit

$$\frac{6 \text{ feet}}{1 \text{ foot}} = \frac{30.48 \text{ centimeter}}{1}$$

- Cross multiply

$$\frac{86 \times 30.48 \text{ centimeter}}{1} = \frac{182.88 \text{ centimeter}}{1} = 182.88 \text{ centimeter}$$

Therefore: 6 feet is 182.88 centimeter

### Small unit to Large unit

2. 650 millimeter = \_\_\_\_\_ feet

Since

$$10 \text{ millimeter} = 1 \text{ centimeter}$$

$$\frac{650 \text{ millimeter}}{10 \text{ millimeter}} = \frac{1 \text{ centimeter}}{10} = \frac{650 \text{ centimeter}}{10} = 65 \text{ centimeter}$$

➤ **Cancellation of similar unit**

$$\frac{65 \text{ centimeter}}{30.48 \text{ centimeter}} = \frac{1 \text{ foot}}{1}$$

➤ **Cross multiply**

$$\frac{65 \text{ feet}}{30.48} = 2.13 \text{ feet}$$

**Therefore: 650 millimeter is 2.13 feet**