

# Converting Measurements Between SI & Imperial Systems

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## Imperial and SI

$$1 \text{ mile} = 1.609 \text{ Km}$$

$$1 \text{ yard} = 0.9144 \text{ m}$$

$$1 \text{ foot} = 30.48 \text{ cm}$$

$$1 \text{ inch} = 2.54 \text{ cm}$$

Use these conversion factors by multiplying when converting from Left to Right, or by dividing when converting from right to left.

Ex. #1

$$24 \text{ ft} = \underline{7.31 \text{ m}}$$

$$24 \cancel{\text{ ft}} \times \frac{30.48 \cancel{\text{ cm}}}{1 \cancel{\text{ ft}}} \times \frac{1 \text{ m}}{100 \cancel{\text{ cm}}} = \frac{24 \times 30.48}{100} = 7.31 \text{ m}$$

Ex. #2

$$5' 8'' = \underline{173 \text{ cm}}$$

$$\boxed{1 \text{ in} = 2.54 \text{ cm}}$$

5 ft = 12 in

$$\begin{aligned} & 5 \text{ ft} \times \frac{12 \text{ in.}}{1 \text{ ft.}} \\ & = 60 + 8 \\ & = 68 \text{ in.} \end{aligned}$$

$$68 \text{ in.} \times \frac{2.54 \text{ cm}}{1 \text{ in.}} = 173 \text{ cm}$$