

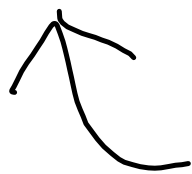
UNIT CONVERSIONS

$$7 \times 1 = 7$$

$$12 \times 1 = 12$$

$$\frac{2}{2} = 1 \quad \frac{3}{3} = 1$$

$$\frac{14d}{3ft} = 1$$



CONVERSION
FACTOR

Convert 15 feet into yards.

$$1 \text{ yd} = 3 \text{ ft}$$

$$\frac{15 \cancel{\text{ft}}}{1} \left(\frac{1 \text{ yd}}{3 \cancel{\text{ft}}} \right) = 5 \text{ yd}$$

meter

gram

second

Metric prefixes

deca	da	10	1×10^1
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hecto	h	100	1×10^2
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kilo	k	1000	1×10^3
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Mega	M	1,000,000	1×10^6
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Giga	G	1,000,000,000	1×10^9
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Tera	T	1,000,000,000,000	
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1×10^{12}

Metric Prefixes

deci d $\frac{1}{10}$ 0.1 1×10^{-1}

Cent: c $\frac{1}{100}$ 0.01 1×10^{-2}

Mill: m $\frac{1}{1000}$ 0.001 1×10^{-3}

micro μ $\frac{1}{1,000,000}$ 0.000001
 1×10^{-6}

nano n $\frac{1}{1,000,000,000}$

0.000000001

1×10^{-9}

Pico p $\frac{1}{1,000,000,000,000}$

0.0000000000001

1×10^{-12}

Convert 122 centimeters to meters.

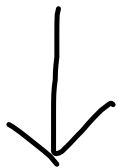
$$1 \text{ cm} = 1 \times 10^{-2} \text{ m}$$

$$\frac{122 \text{ cm}}{1} \left(\frac{1 \times 10^{-2} \text{ m}}{1 \text{ cm}} \right) = 1.22 \text{ m}$$

or
 $1.22 \times 10^0 \text{ m}$

By hand:

$$122 \times 10^{-2}$$



$$1.22 \times 10^0$$



$$1.22 \times 1 = 1.22$$

Convert 15.7 millimeters
into centimeters.

$$\frac{15.7 \cancel{\text{mm}}}{1} \left(\frac{? \text{ cm}}{? \cancel{\text{mm}}} \right)$$

mm \longrightarrow m \longrightarrow cm