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Conversions: Speed, Area, Volume

Speed

Speed = Length / Time

Area

$A_{rectangle} = L \cdot W$
$A_{circle} = \pi R^2$
$A_{cylinder} = 2\pi R^2 + 2\pi RH$
$A_{sphere} = 4\pi R^2$

Volume

$V_{rectangle} = L \cdot W \cdot H$
$V_{cylinder} = \pi R^2 H$
$V_{sphere} = 4\pi R^3 / 3$

1 mL = 1 cc = 1 cm^3
1 gal = 3.78541 L

A. Speed

25 miles / hour = _____ m / s
25 miles / hour = (25 miles / 1 hour)·(1609.34 m / 1 mile)·(1 hour / 3600 s)
25 miles / hour = 11.2 m / s

B. Area

10 $miles^2$ = _____ m^2
10 $miles^2$ = (10 $miles^2$)·(1609.43 m / 1 mile)^2
10 $miles^2$ = 2.59 x 10^7 m^2

C. Volume

2.5 x 10^5 cm^3 = _____ gal
2.5 x 10^5 cm^3 = (2.5 x 10^5 cm^3)·(1 mL / 1 cm^3)·(1 L / 1000 mL)·(1 gal / 3.78541 L)
2.5 x 10^5 cm^3 = 66 gal