

Useful Formulas

1 nautical mile (nm) = 1.1508 statute miles = 1852 meters 1 statute mile = 0.8690 nautical miles
1 millibar (mb) mercury = .02953 inches mercury
Celsius = (Fahrenheit – 32) / 1.8 Fahrenheit = (1.8 * Celsius) + 32
1 fathom = 6 feet
1 meter = 3.2808 feet = 39.3701 inches ¹ 1 foot = 0.30480 meters 1 inch = 0.02540 meters = 2.54 centimeters = 25.4000 millimeters
1 gram = 0.0353 ounces 1 ounce = 28.3495 grams 1 kilogram = 2.2046 pounds 1 pound = 0.4536 kilograms
1 U.S. gallon = 3.785 liters
Set (direction) and Drift (speed) formulas: Distance = Speed * Time / 60 Speed = 60 * Distance / Time Time = 60 * Distance / Speed
Theoretical max hull speed for displacement hull = $1.34 * \sqrt{LWL}$
Ohms Law: I = V / R (current in amperes (amps) = voltage ÷ resistance) V = I * r r = V / I
Watts = volts * amps Amps = watts / volts (An 18 watt bulb will draw 18/12 = 1.5 amps on a 12 volt system)
Fresh water weighs 8.33 lbs / U.S. gallon
Diesel fuel weighs between 7.0 and 7.3 lbs / U.S. gallon depending on specifications and temperature
Gasoline weighs between 6.0 and 6.3 lbs / U.S. gallon depending on specifications and temperature

¹ Online conversion calculator: <http://www.metric-conversions.org/>