

## Measurement Systems and Conversions

### LENGTH

#### English

1 chain (ch)	= 66 feet (ft)
10 chains	= 220 yards (yd)
1 mile (mi)	= 1,760 yards = 80 chains

#### Metric

1 nanometer (nm)	= 1,000 picometers
1 micrometer ( $\mu\text{m}$ )	= 1,000 nanometers
1 millimeter (mm)	= 1,000 micrometers (=1/100,000 of a meter)
1 centimeter (cm)	= 10 millimeters
1 meter (m)	= 100 centimeters = 1,000 mm
1 kilometer (km)	= 1,000 meters

#### Conversions

1 inch (in)	= 2.54 centimeters (exactly)
1 centimeter	= 0.3937 inches
1 foot	= 30.48 centimeters (exactly)
1 meter	= 3.28 feet
1 yard	= 0.9144 meters (exactly)
1 meter	= 1.0936 yards or 39.37 inches
1 chain	= 20.1168 meters (exactly)
1 meter	= 0.0497 chains
1 mile	= 1.609 kilometers
1 kilometer	= 0.621 miles

### AREA

#### English

1 square chain	= 484 square yards
1 acre (ac)	= 10 square chains = 43,560 square feet
1 square mile	= 640 acres

#### Metric

1 hectare (ha)	= 10,000 square meters
1 square kilometer	= 100 hectares

#### Conversions

1 square meter	= 10.76 square feet
1 square yard	= 0.835 meters
1 square chain	= 404.6856 square meters
1 acre	= 0.404686 hectares
1 hectare	= 2.471 acres
1 square mile	= 2.5899 square kilometers
1 square kilometer	= 0.386 square miles