

METRIC EQUIVALENT CHART (1 OF 2)

METRIC/U.S. CUSTOMARY UNIT EQUIVALENTS

Multiply: by: to get: | Multiply: by: to get:

LINEAR

| | | | | |
|-------------|----------|--------------------|-----------|---------------|
| inches | X 25.40 | = millimetres (mm) | X 0.03937 | = inches |
| feet | X 0.3048 | = metres (m) | X 3.281 | = feet |
| yards | X 0.9144 | = metres (m) | X 1.0936 | = yards |
| miles | X 1.6093 | = kilometres (km) | X 0.6214 | = miles |
| inches | X 2.540 | = centimetres (cm) | X 0.3937 | = inches |
| microinches | X 0.0254 | = micrometres (µm) | X 39.37 | = microinches |

AREA

| | | | | |
|---------------------|----------|--|-----------|-----------------------|
| inches ² | X 645.16 | = millimetres ² (mm ²) | X 0.00155 | = inches ² |
| inches ² | X 6.452 | = centimetres ² (cm ²) | X 0.155 | = inches ² |
| feet ² | X 0.0929 | = metres ² (m ²) | X 10.764 | = feet ² |
| yards ² | X 0.8361 | = metres ² (m ²) | X 1.196 | = yards ² |
| acres | X 0.4047 | = hectares (10 ⁴ m ²) or (ha) | X 2.471 | = acres |
| miles ² | X 2.590 | = kilometres ² (km ²) | X 0.3861 | = miles ² |

VOLUME

| | | | | |
|---------------------|-----------|---|------------|-----------------------|
| inches ³ | X 16387 | = millimetres ³ (mm ³) | X 0.000061 | = inches ³ |
| inches ³ | X 16.387 | = centimetres ³ (cm ³) | X 0.06102 | = inches ³ |
| inches ³ | X 0.01639 | = litres (L) | X 61.024 | = inches ³ |
| quarts | X 0.94635 | = litres (L) | X 1.0567 | = quarts |
| gallons | X 3.7854 | = litres (L) | X 0.2642 | = gallons |
| feet ³ | X 28.317 | = litres (L) | X 0.03531 | = feet ³ |
| feet ³ | X 0.02832 | = metres ³ (m ³) | X 35.315 | = feet ³ |
| fluid oz | X 29.57 | = millilitres (mL) | X 0.03381 | = fluid oz |
| yards ³ | X 0.7646 | = metres ³ (m ³) | X 1.3080 | = yards ³ |
| teaspoons | X 4.929 | = millilitres (mL) | X 0.2029 | = teaspoons |
| cups | X 0.2366 | = litres (L) | X 4.227 | = cups |

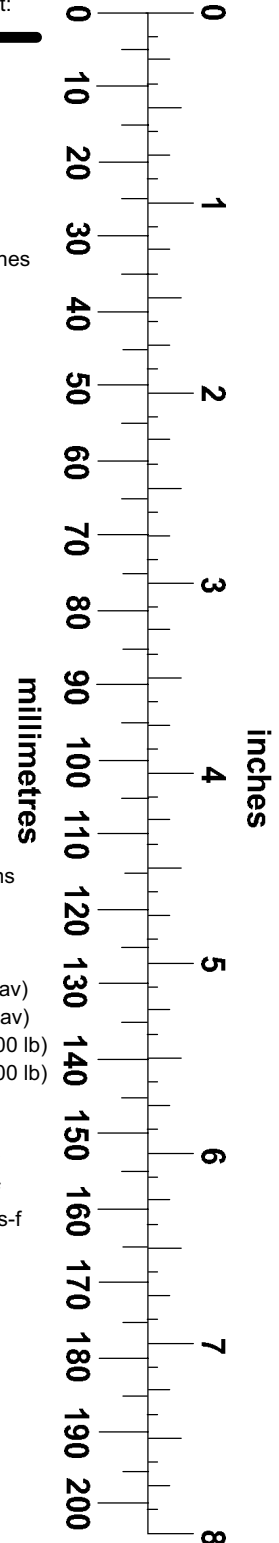
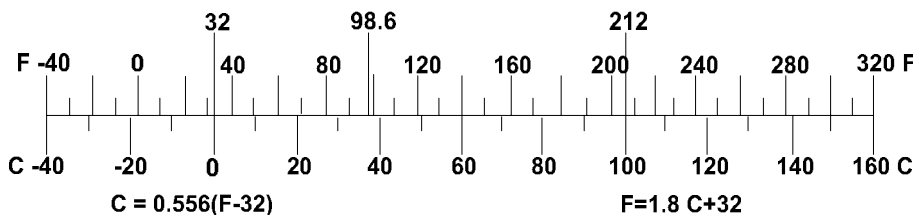
MASS

| | | | | |
|----------------|-----------|-------------------|------------|------------------|
| ounces (av) | X 28.35 | = grams (g) | X 0.03527 | = ounces (av) |
| pounds (av) | X 0.4536 | = kilograms (kg) | X 2.2046 | = pounds (av) |
| tons (2000 lb) | X 907.18 | = kilograms (kg) | X 0.001102 | = tons (2000 lb) |
| tons (2000 lb) | X 0.90718 | = metric tons (t) | X 1.1023 | = tons (2000 lb) |

FORCE

| | | | | |
|-------------|---------|---------------|-----------|---------------|
| ounces-f | X 0.278 | = newtons (N) | X 3.597 | = ounces-f |
| pounds-f | X 4.448 | = newtons (N) | X 0.2248 | = pounds-f |
| kilograms-f | X 9.807 | = newtons (N) | X 0.10197 | = kilograms-f |

TEMPERATURE



METRIC EQUIVALENT CHART (2 OF 2)

METRIC/U.S. CUSTOMARY UNIT EQUIVALENTS

Multiply: _____ by: _____ to get: _____ | Multiply _____ by: _____ to get: _____

ACCELERATION

(Standard gravity = 9.807 m/s²)

| | | | | |
|-------------------------|----------|---|---------|---------------------------|
| feet/sec ² | X 0.3048 | = metres/sec ² (m/s ²) | X 3.281 | = feet/sec ² |
| inches/sec ² | X 0.0254 | = metres/sec ² (m/s ²) | X 39.37 | = inches/sec ² |

ENERGY OR WORK

(watt-second = joule = newton-metre)

| | | | | |
|------------------------|----------|-------------------|-------------|------------------|
| foot-pounds | X 1.3558 | = joules (J) | X 0.7376 | = foot-pounds |
| pounds calories (heat) | X 4.187 | = joules (J) | X 0.2388 | = calories |
| (int'l) | | | | |
| Btu (int'l) | X 1055 | = joules (J) | X 0.000948 | = Btu (int'l) |
| watt-hours | X 3600 | = joules (J) | X 0.0002778 | = watt-hours |
| hours | | | | |
| kilowatt-hours | X 3.600 | = megajoules (MJ) | X 0.2778 | = kilowatt-hours |

PRESSURE OR STRESS

(newton/sq metre = pascal)

| | | | | |
|-------------------------------|----------|---------------------|------------|---------------------------|
| inches Hg(60°F) | X 3.377 | = kilopascals (kPa) | X 0.2961 | = inches Hg |
| pounds/sq in | X 6.895 | = kilopascals (kPa) | X 0.145 | = pounds/sq in |
| sq in | | | | |
| pounds/sq in | X .06895 | = Bars | X 14.504 | = pounds/sq in |
| sq in | | | | |
| inches H ₂ O(60°F) | X 0.2488 | = kilopascals (kPa) | X 4.0193 | = inches H ₂ O |
| H ₂ O | | | | |
| bars | X 100 | = kilopascals (kPa) | X 0.01 | = bars |
| pounds/sq ft | X 47.88 | = pascals (Pa) | X 0.02088 | = pounds/sq ft |
| sq ft | | | | |
| kgf/cm ² | X 98.07 | = kilopascals (kPa) | X 0.010197 | = kgf/cm ² |

POWER

| | | | | |
|------------|----------|------------------|---------|--------------|
| horsepower | X 0.746 | = kilowatts (kW) | X 1.34 | = horsepower |
| power | | | | |
| ft-lbf/min | X 0.0226 | = watts (W) | X 44.25 | = ft-lbf/min |

TORQUE

| | | | | |
|--------------|-----------|----------------------|-----------|----------------|
| pound-inches | X 0.11298 | = newton-metres (Nm) | X 8.851 | = pound-inches |
| inches | | | | |
| pound-feet | X 1.3558 | = newton-metres (Nm) | X 0.7376 | = pound-feet |
| feet | | | | |
| kgf-cm | X 0.09807 | = newton-metres (Nm) | X 10.197 | = kgf-cm |
| kgf-m | X 9.807 | = newton-metres (Nm) | X 0.10197 | = kgf-m |

