

Conversion Tables

For the purposes of this course, we will use the conversion factors in this table. You are responsible for knowing the conversions within the U.S. system and within the Metric system. Conversions between the two systems will be provided during tests and quizzes. = means **Exact Value**, \approx means **Approximate Value**.

U.S. Customary Units		
LENGTH	VOLUME	WEIGHT
1 foot (ft.) = 12 in.	1 cup = 8 oz.	1 pound (lb.) = 16 ounces (oz.)
1 yard (yd.) = 3 ft.	1 pint (pt.) = 2 c.	1 ton (T) = 2,000 pounds (lb.)
1 mile (mi.) = 5,280 ft.	1 quart (qt.) = 2 pt.	
	1 gallon (gal.) = 4 qt.	

Metric Relationships							
LENGTH = METER		VOLUME = LITER			WEIGHT = GRAM		
	1,000	100	10	1 (base unit)	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Prefix	kilo	hecto	deka	meter Liter gram	deci	centi	milli
Abbreviation	k	h	da	m L g	d	c	m
Other Metric Relations:		1 cm ³ = 1 cc = 1 mL		1 m ³ = 1 kL	1 liter H ₂ O \approx 1 kg		

Conversions Between U.S. Customary and Metric System*		
LENGTH	VOLUME	WEIGHT
1 inch = 2.54 centimeter 1 centimeter \approx 0.394 inch	1 quart \approx 0.946 liter 1 liter \approx 1.06 quart	1 pound \approx 0.454 kilogram 1 kilogram \approx 2.20 pound
1 yard \approx 0.914 meter 1 meter \approx 1.09 yard	1 ft ³ \approx 7.48 gallons	1 ounce \approx 28.35 gram 1 gram \approx 0.0353 ounce
1 mile \approx 1.61 kilometer 1 kilometer \approx 0.621 mile	1 gallon H ₂ O \approx 8.33 lb	
TEMPERATURE		
$F = \frac{9}{5} C + 32$		$C = \frac{5}{9} (F - 32)$

CO₂ From Gas 19.8 lb per gallon

CO₂ From Electricity production 1.37 lb per kWh

z-Score	Probability	z-Score	Probability	z-Score	Probability	z-Score	Probability
-3.5	0.0002	-1.0	0.1587	0.0	0.5	1.1	0.8643
-3.0	0.0013	-0.95	0.1711	0.05	0.5199	1.2	0.8849
-2.9	0.0019	-0.90	0.1841	0.10	0.5398	1.3	0.9032
-2.8	0.0026	-0.85	0.1977	0.15	0.5596	1.4	0.9192
-2.7	0.0035	-0.80	0.2119	0.20	0.5793	1.5	0.9332
-2.6	0.0047	-0.75	0.2266	0.25	0.5987	1.6	0.9452
-2.5	0.0062	-0.70	0.2420	0.30	0.6179	1.7	0.9554
-2.4	0.0082	-0.65	0.2578	0.35	0.6368	1.8	0.9641
-2.3	0.0107	-0.60	0.2743	0.40	0.6554	1.9	0.9713
-2.2	0.0139	-0.55	0.2912	0.45	0.6736	2.0	0.9772
-2.1	0.0179	-0.50	0.3085	0.50	0.6915	2.1	0.9821
-2.0	0.0228	-0.45	0.3264	0.55	0.7088	2.2	0.9861
-1.9	0.0287	-0.40	0.3446	0.60	0.7257	2.3	0.9893
-1.8	0.0359	-0.35	0.3632	0.65	0.7422	2.4	0.9918
-1.7	0.0446	-0.30	0.3821	0.70	0.7580	2.5	0.9938
-1.6	0.0548	-0.25	0.4013	0.75	0.7734	2.6	0.9953
-1.5	0.0668	-0.20	0.4207	0.80	0.7881	2.7	0.9965
-1.4	0.0808	-0.15	0.4404	0.85	0.8023	2.8	0.9974
-1.3	0.0968	-0.10	0.4602	0.90	0.8159	2.9	0.9981
-1.2	0.1151	-0.05	0.4801	0.95	0.8289	3.0	0.9987
-1.1	0.1357	0.0	0.5	1.0	0.8413	3.5	0.9998

OTHER USEFUL INFO

1 liter = .001 cubic meters	Area of Rectangle = Length X Width
1 liter = 1000 cm ³	Volume of Rectangular box = Length X Width X Height
	Volume of Cylinder = $\pi r^2 h$
1 liter of water \approx 1 kilogram	1 Day = 24 Hours 1 Hour = 60 Minutes
	1 Minute = 60 Seconds 1 Year = 52 weeks = 365 days