

Conversion Equivalents

<u>Unit</u>	<u>Equivalent Units</u>
Acre	43,560 square feet; 4,810 square yards; 160 square rods.
Barrel.....	31.5 gallons.
Bushel	1.244 cubic feet; 2,150.42 cubic inches; 32 quarts (dry); 4 pecks.
Cord	128 cubic feet.
Cubic foot	0.8 bushel; 1,728 cubic inches; 7.481 gallons; 62.4 pounds (water).
Cubic yard	27 cubic feet; 202 gallons.
Feet per second	(22/15) x miles per hour.
Foot	12 inches; 1/3 yard; 0.305 meter.
Gallon	231 cubic inches (liquid); 268.8 cubic inches (dry); 0.1337 cubic foot; 4 quarts; 8.345 pounds (water).
Inch	2.54 centimeter.
Meter	39.37 inches; 1.094 yards; 3.281 feet.
Mile	5,280 feet; 1,760 yards; 320 rods; 1.609 kilometers.
Peck	8 quarts; 1/4 bushel.
Pint	1/2 quart; 16 ounces.
Quart	2 pints; 32 ounces; 67.2 cubic inches (dry); 57.75 cubic inches (liquid).
Rod	16.5 feet; 5.5 yards.
Square foot.....	1/9 square yard; 144 square inches.
Square mile	640 acres.
Square yard.....	9 square feet.
Ton	2,240 pounds (long); 2,205 pounds (metric); 2,000 pounds (short).
Yard.....	3 feet; 0.9144 meter.

Measurement Formulas

Circumference of circle = $3.1416 \times \text{diameter} = \frac{22 \times \text{diameter}}{7}$

Area of circle = $.7854 \times \text{diameter} \times \text{diameter}$.

Area of rectangle = length x width.

Area of triangle = $0.5 \times \text{base} \times \text{altitude}$.

Area of curved surface of cylinder (like a silo) = $3.1416 \times \text{diameter} \times \text{height}$.

Volume of sphere = $.5238 \times \text{diameter} \times \text{diameter} \times \text{diameter}$.

Volume of cylinder = $.7854 \times \text{height} \times \text{diameter} \times \text{diameter}$.

Volume of pyramid = $1/3 \times \text{area of base} \times \text{altitude}$.

Volume of cone (like a stack of grain) = $.2618 \times \text{height} \times \text{diameter} \times \text{diameter}$.

Capacity of Rectangle and Cylindrical Bins and Tanks

Determine the cubic feet in a rectangular bin, crib or tank by multiplying the length by the width by the height. To calculate the cubic feet for cylindrical shaped containers, square the radius and multiply by 3.1416 and then multiply by the height.

To find the approximate number of bushels of small grain or shelled corn in a bin, multiply the cubic feet by .8.

To compute the numbers of gallons in a tank, multiply the number of cubic feet by 7.4805.

Capacity of Trench and Bunker Silos

Corn or grass silage, well packed by a tractor in a horizontal silo, will weigh an average of 40 to 50 pounds per cubic foot. Multiply the average width by the depth by the length (all in feet) = vol. in cu. ft. Divide the number of cu. ft. in the silo by 50. This equals tons of silage.

Common Fractions Reduced to Decimals									
8ths	16ths	32nds	6ths		8ths	16ths	32nds	64ths	
		1		.015625				33	.545625
		2		.03125			17	34	.53125
		3		.046875				35	.546875
	1	2	4	.0625		9	18	36	.5625
		5		.078125				37	.578125
		3	6	.09375			19	38	.59375
			7	.109375				39	.609375
1	2	4	8	.125	5	10	20	40	.625
			9	.140625				41	.640625
		5	10	.15625			21	42	.65625
			11	.171875				43	.671875
	3	6	12	.1875		11	22	44	.6875
			13	.203125				45	.703125
			7	.21875			23	46	.71875
			15	.234375				47	.734375
2	4	8	16	.25	6	12	24	48	.75
			17	.265625				49	.765625
			9	.28125			25	50	.78125
			19	.296875				51	.796875
	5	10	20	.3125		13	26	52	.8125
			21	.328125				53	.828125
			11	.34375			27	54	.84375
			23	.359375				55	.859375
3	6	12	24	.375	7	14	28	56	.875
			25	.390625				57	.890625
			13	.40625			29	58	.90625
			27	.421875				59	.921875
	7	14	28	.4375		15	30	60	.9375
			29	.453125				61	.953125
			15	.46875			31	62	.96875
			30	.484375				63	.984375
4	8	16	32	.5	8	16	32	64	1.

Interest Calculations												
RULE: Multiply the principal by as many one hundredths as there are days, and then divide as follows:												
Percent	4	5	6	7	8	9	10	12				
Divided by	90	72	60	52	45	40	36	30				
EXAMPLES: Interest on \$100, for 90 days at 5 percent: 100 x .90 = 90.00 divided by 72 = 1.25 (1 dollar and 25 cents); on \$1, for 30 days at 6 percent: 1 x .30 = .30 divided by 60 = .005 (5 mills).												
TABLES: Showing the number of days from any date in one month to the same date in any other month.												
From To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365
EXAMPLE: How many days from May 5 th to October 5 th ? Look for May at left hand and October at the top; in the angle is 153. In Leap year add one day if February is included.												