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LIQUID MEASURES
1 gal \(=4\) qt. \(=8 \mathrm{pt} .=16 \mathrm{cups}=128 \mathrm{oz} .=\sim 3.785 \mathrm{~L}=\sim 3785 \mathrm{ml}\)
\(1 \mathrm{qt} .=32 \mathrm{oz}\).
\(1 \mathrm{~L}=1.06 \mathrm{qt} .=33.81 \mathrm{oz} .=0.227 \mathrm{gal}\)
\(1 \mathrm{ml}=0.034 \mathrm{oz}\).
\(1 \mathrm{oz} .=\sim 30 \mathrm{ml}=6 \mathrm{tsp} .=2 \mathrm{Tbsp} .=0.125 \mathrm{cup}\)
1 tsp. \(=5 \mathrm{ml}\)
1 Tbsp. \(=3 \mathrm{tsp} .=15 \mathrm{ml}\)
1 cup \(=0.5\) pint \(=0.25 \mathrm{qt} .=\sim 240 \mathrm{ml}=8 \mathrm{oz} .=16 \mathrm{Tbsp} .=48 \mathrm{tsp}\).
\(1 / 2\) cup \(=0.25\) pint \(=0.125 \mathrm{qt} .=120 \mathrm{ml}=4 \mathrm{oz} .=8 \mathrm{Tbsp} .=24 \mathrm{tsp}\).
\(1 / 4 \mathrm{cup}=0.125\) pint \(=0.0625 \mathrm{qt} .=60 \mathrm{ml}=2 \mathrm{oz} .=4 \mathrm{Tbsp} .=12 \mathrm{tsp}\).
\(1 \mathrm{ml}=1 \mathrm{cc}\)
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| LENGTH | WEIGHT |
| :--- | :--- |
| $1 \mathrm{in}=2.5 \mathrm{~cm}$ | $1 \mathrm{lb}=0.45 \mathrm{~kg}$ |
| $1 \mathrm{~cm}=0.4 \mathrm{in}$ |  |
| $12 \mathrm{in}=1 \mathrm{ft}$. | $1 \mathrm{~kg}=2.2 \mathrm{lb}$ |
| $3 \mathrm{ft}=1 \mathrm{yd}$ | $1 \mathrm{ton}=2000 \mathrm{lb}$ |
| $1 \mathrm{~cm}=10 \mathrm{~mm}$ |  |
| $1 \mathrm{~m}=3.28 \mathrm{ft}$ | $1 \mathrm{mg}=0.001 \mathrm{gram}$ |
| TEMPERATURE | $1 \mathrm{~kg}=1000 \mathrm{gram}$ |
|  |  |
| Fahrenheit $=($ Celsius $\times 1.8)+32$ OR | PERCENT SOLUTIONS |
| (Celsius $\times 9 / 5)+32$ | $1000 \mathrm{mg} / \mathrm{ml}$ is a $100 \%$ solution. |
| Celsius $=($ Fahrenheit -32$) \times 0.555$ OR | $100 \mathrm{mg} / \mathrm{ml}$ is a $10 \%$ solution. |
| (Fahrenheit -32$) \times 5 / 9$ | $10 \mathrm{mg} / \mathrm{ml}$ is a $1 \%$ solution. |
|  | $1 \mathrm{mg} / \mathrm{ml}$ is a $0.1 \%$ solution. |

## METRIC UNITS

| Kilo | Hecto | Deka | UNIT (U) | Deci | Centi | milli |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1000 | 100 | 10 | 1 | 0.1 | 0.01 | 0.001 |
| $\mathrm{U} \times 0.001$ | $\mathrm{U} \times 0.01$ | $\mathrm{U} \times 0.1$ | $\mathrm{~L}, \mathrm{~g}, \mathrm{~m}$ | $\mathrm{U} \times 10$ | $\mathrm{U} \times 100$ | $\mathrm{U} \times 1000$ |

A kg is 1000 times bigger than a gram and 1,000,000 times bigger than a mg.
To convert grams to milligrams multiply by 1000 ( 25 grams $\times 1000=2500 \mathrm{mg}$ ). This makes since as a mg is tiny compared to a gram. To convert a milligram to a kilogram multiply by 0.0000001 ( $25 \mathrm{mg} \times 0.0000001=0.0000025 \mathrm{~kg}$ ). This makes since because a kg is enormous compared to a mg.

