



# HAYWARD®

## Conversion Factors

### Liquid Measure and Weight

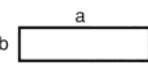
To Obtain Multiply By	U.S. Gallon	Imperial Gallon	U.S. Pound Water	U.S. Cubic Foot	U.S. Cubic Inch	Liter	Cubic Meter
U.S. Gallon	1	0.8327	8.337	0.13368	231.0	3.785	0.003785
Imperial Gallon	1.2009	1	10.0	0.16054	277.78	4.546	0.004546
U.S. Pound Water	0.11995	0.1	1	0.016035	27.708	0.45404	0.000454
U.S. Cubic Foot	7.4805	6.2288	62.365	1	1728.0	28.316	0.028314
U.S. Cubic Inch	0.004329	0.00360	0.3609	0.000578	1	0.016387	0.0000164
Liter	0.26418	0.21997	2.202	0.035315	61.025	1	0.0010
Cubic Meter	264.2	219.99	2202.6	35.3183	61030.0	999.97	1

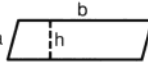
### Pressure and Head

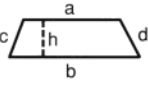
To Obtain Multiply By	lb/sq in	lb/sq ft	atmo-sphere	kg/sq cm	inch water	foot water	inch mercury	mm mercury	bar
lb/sq in	1	144.0	0.068046	0.070307	27.7276	2.3106	2.0360	51.7150	0.06895
lb/sq ft	0.006945	1	0.000473	0.000488	0.1926	0.01605	0.014139	0.35913	0.000479
atmosphere	14.696	2116.22	1	1.0332	407.484	33.9570	29.921	760.0	1.01325
kg/sq cm	14.2233	2048.16	0.96784	1	394.27	32.864	28.959	735.558	0.9807
in water	0.03607	5.194	0.002454	0.00254	1	0.08333	0.0734	1.865	0.00249
ft water	0.43278	62.3205	0.029449	0.03043	12.0	1	0.8811	22.381	0.02984
in mercury	0.49115	70.726	0.033421	0.03453	13.617	1.1349	1	25.40	0.03386
mm mercury	0.019337	2.7845	0.0013158	0.0013595	0.5361	0.04468	0.03937	1	0.001333
bar	14.5038	2088.55	0.98692	1.0197	402.1	33.51	29.53	750.0	1

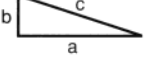
### Area and Volume Formulas

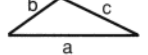
A = Area, S = Surface Area of Solid, V = Volume, C = Circumference, R = Radius of Circumscribed Circle


**Rectangle**  
  
 $A = ab$   
 $C = 2(a + b)$

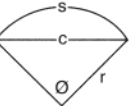
**Parallelogram**  
  
 $A = bh$   
 $C = 2(a + b)$

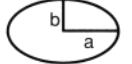
**Trapezoid**  
  
 $A = 0.5(a + b)h$   
 $C = a + b + c + d$


**Right Triangle**  
  
 $A = 0.5 ab$   
 $R = 0.5 c$


**General Triangle**  
  
 $A = \frac{1}{2} \sqrt{s(s-a)(s-b)(s-c)}$   
 $R = abc / (0.25A)$


**Circle**  
  
 $A = 3.142r^2$   
 $C = 6.283r$


**Sector of Circle**  
  
 $S = r\theta$   
 $C = 2r \sin(\theta/2)$   
 $A(\text{sector}) = 0.5rs$   
 $A(\text{segment}) = 0.5r^2(\theta - \sin\theta)$

**Ellipse**  
  
 $A = 3.142ab$   
 $C = 6.284 \sqrt{[a(a+b)b]/2}$

**Cylinder**  
  
 $C = 3.142r^2h$   
 $S = 6.284rh$

**Cone**  
  
 $V = 1.047r^2h$   
 $S = 3.142r\sqrt{r(r+h)}h$

**Sphere**  
  
 $A = 4.189r^2$   
 $S = 12.57r^2$

**Frustum of Right Circular Cone**  
  
 $V = 1.047h[a(a+b)(b+a)b]$   
 $S = 3.142(a+b)\sqrt{(a-b)}$



# HAYWARD®

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