Basic College Mathematics

TWELFTH EDITION

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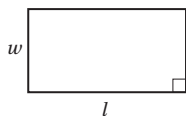
PEARSON

Geometric Formulas
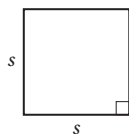
PLANE GEOMETRY

Rectangle
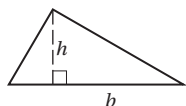Area: $A = l \cdot w$
Perimeter: $P = 2 \cdot l + 2 \cdot w$
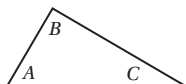
Square
Area: $A = s^2$
Perimeter: $P = 4 \cdot s$

Triangle
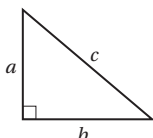Area: $A = \frac{1}{2} \cdot b \cdot h$

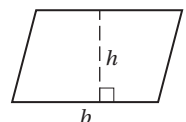**Sum of Angle Measures**
$A + B + C = 180°$

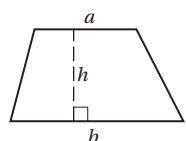**Right Triangle**
Pythagorean Theorem:
$a^2 + b^2 = c^2$

Parallelogram
Area: $A = b \cdot h$

Trapezoid
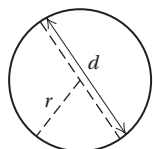Area: $A = \frac{1}{2} \cdot h \cdot (a + b)$
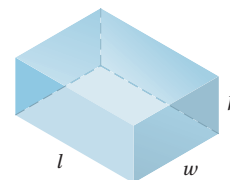
Circle
Area: $A = \pi \cdot r^2$
Circumference:
$C = \pi \cdot d = 2 \cdot \pi \cdot r$ $\left(\frac{22}{7}\right.$ and 3.14
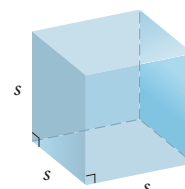are different approximations for π)

SOLID GEOMETRY

Rectangular Solid
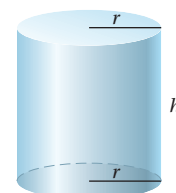Volume: $V = l \cdot w \cdot h$

Cube
Volume: $V = s^3$

Right Circular Cylinder
Volume: $V = \pi \cdot r^2 \cdot h$
Surface Area:
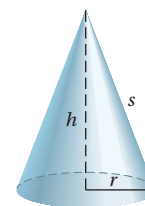$S = 2 \cdot \pi \cdot r \cdot h + 2 \cdot \pi \cdot r^2$

Right Circular Cone
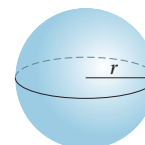Volume: $V = \frac{1}{3} \cdot \pi \cdot r^2 \cdot h$
Surface Area:
$S = \pi \cdot r^2 + \pi \cdot r \cdot s$

Sphere
Volume: $V = \frac{4}{3} \cdot \pi \cdot r^3$
Surface Area: $S = 4 \cdot \pi \cdot r^2$

Fraction, Decimal, and Percent Equivalents

Fraction Notation	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{3}{10}$	$\frac{1}{3}$	$\frac{3}{8}$	$\frac{2}{5}$	$\frac{1}{2}$	$\frac{3}{5}$	$\frac{5}{8}$	$\frac{2}{3}$	$\frac{7}{10}$	$\frac{3}{4}$	$\frac{4}{5}$	$\frac{5}{6}$	$\frac{7}{8}$	$\frac{9}{10}$	$\frac{1}{1}$
Decimal Notation	0.1	0.125	$0.16\overline{6}$	0.2	0.25	0.3	$0.33\overline{3}$	0.375	0.4	0.5	0.6	0.625	$0.66\overline{6}$	0.7	0.75	0.8	$0.83\overline{3}$	0.875	0.9	1
Percent Notation	10%	12.5% or $12\frac{1}{2}\%$	$16.\overline{6}\%$ or $16\frac{2}{3}\%$	20%	25%	30%	$33.\overline{3}\%$ or $33\frac{1}{3}\%$	37.5% or $37\frac{1}{2}\%$	40%	50%	60%	62.5% or $62\frac{1}{2}\%$	$66.\overline{6}\%$ or $66\frac{2}{3}\%$	70%	75%	80%	$83.\overline{3}\%$ or $83\frac{1}{3}\%$	87.5% or $87\frac{1}{2}\%$	90%	100%

Basic College Mathematics, Global Edition

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