Mathematical Symbols

$=$	is equal to
$\neq$	is not equal to
$<$	is less than
$>$	is greater than
$\approx$	is approximately equal to
...	continues without end
%	percent
$0.\overline{3}$	0.333...(repeating decimals)
(3, 4)	ordered pair
.	decimal point
$^{+}4$	positive 4
$^{-}4$	negative 4
$\lvert^{-}4\rvert$	the absolute value of negative 4
10^2	ten squared
10^3	ten cubed
$\sqrt{\ }$	positive square root
$\overleftrightarrow{AB}$	line AB
$\overline{AB}$	segment AB
$\overrightarrow{AB}$	ray AB
$\angle ABC$	angle ABC
$m\angle A$	measure of $\angle A$
ABC	plane ABC
$\triangle ABC$	triangle ABC
$\sim$	is similar to
$\cong$	is congruent to
$\parallel$	is parallel to
$\perp$	is perpendicular to
π	pi
cm^2	square centimeter
$in.^3$	cubic inch
$\circ$	degree
2 : 3	two to three (ratio)
$P(E)$	probablilty of an event

Geometric Formulas

Perimeter

Rectangle: $P = 2(\ell + w)$
Regular Polygon: $P = ns$
Square: $P = 4s$

Circumference of Circle

$C = \pi d = 2\pi r$

Area

Circle: $A = \pi r^2$
Parallelogram: $A = bh$
Rectangle: $A = \ell w$
Square: $A = s^2$
Triangle: $A = \frac{1}{2}bh$
Trapezoid: $A = \frac{1}{2}(b_1 + b_2)h$

Surface Area

Cylinder: $S = 2\pi r^2 + 2\pi rh$
Cube: $S = 6e^2$
Rectangular Prism: $S = 2(\ell w + \ell h + wh)$
Square Pyramid: $S = s^2 + 4(\frac{1}{2}bh)$

Volume

Cylinder:	$V = (\pi r^2)h$
Cube:	$V = e^3$
Prism (general formula):	$V = Bh$
Pyramid (general formula):	$V = \frac{1}{3}Bh$
Rectangular Prism:	$V = (\ell w)h$
Triangular Prism:	$V = (\frac{1}{2}bh)h$

Other Formulas

Celsius (°C) $C = \frac{5}{9}(F - 32)$ **Fahrenheit (°F)** $F = \frac{9}{5}C + 32$

Simple Interest = principal × rate × time: $I = prt$

Distance = Rate × Time: $d = rt$

Discount = List Price × Rate of Discount: $D = LP \times R$ of D

Sale Price = Regular Price − Discount: $SP = RP - D$

Sales Tax = Marked Price × Rate of Sales Tax: $T = MP \times R$ of T

Total Cost = Marked Price + Sales Tax: $TC = MP + T$

Commission = Total Sales × Rate of Commission: $C = TS \times R$ of C

Table of Measures

Time

60 seconds (s)	=	1 minute (min)	52 weeks	=	1 year
60 minutes	=	1 hour (h)	365 days	=	1 year
24 hours	=	1 day (d)	366 days	=	1 leap year
7 days	=	1 week (wk)	100 years	=	1 century (cent.)

Metric Units

Length

1000 millimeters (mm)	=	1 meter (m)
100 centimeters (cm)	=	1 meter
10 decimeters (dm)	=	1 meter
10 meters	=	1 dekameter (dam)
100 meters	=	1 hectometer (hm)
1000 meters	=	1 kilometer (km)

Capacity

1000 milliliters (mL)	=	1 liter (L)
100 centiliters (cL)	=	1 liter
10 deciliters (dL)	=	1 liter
10 liters	=	1 dekaliter (daL)
100 liters	=	1 hectoliter (hL)
1000 liters	=	1 kiloliter (kL)

Mass

1000 milligrams (mg)	=	1 gram (g)
100 centigrams (cg)	=	1 gram
10 decigrams (dg)	=	1 gram
10 grams	=	1 dekagram (dag)
100 grams	=	1 hectogram (hg)
1000 grams	=	1 kilogram (kg)

Customary Units

Length

12 inches (in.)	=	1 foot (ft)
3 feet	=	1 yard (yd)
36 inches	=	1 yard
5280 feet	=	1 mile (mi)
1760 yards	=	1 mile

Capacity

8 fluid ounces (fl oz)	=	1 cup (c)
2 cups	=	1 pint (pt)
2 pints	=	1 quart (qt)
4 quarts	=	1 gallon (gal)

Weight

16 ounces (oz) = 1 pound (lb) 2000 pounds = 1 ton (T)

Percent Table

$1\% = \frac{1}{100} = 0.01$	$50\% = \frac{1}{2} = 0.5$	$12\frac{1}{2}\% = \frac{1}{8} = 0.125$	$87\frac{1}{2}\% = \frac{7}{8} = 0.875$
$10\% = \frac{1}{10} = 0.1$	$60\% = \frac{3}{5} = 0.6$	$25\% = \frac{1}{4} = 0.25$	$16\frac{2}{3}\% = \frac{1}{6} = 0.1\overline{6}$
$20\% = \frac{1}{5} = 0.2$	$70\% = \frac{7}{10} = 0.7$	$37\frac{1}{2}\% = \frac{3}{8} = 0.375$	$33\frac{1}{3}\% = \frac{1}{3} = 0.3\overline{3}$
$30\% = \frac{3}{10} = 0.3$	$80\% = \frac{4}{5} = 0.8$	$62\frac{1}{2}\% = \frac{5}{8} = 0.625$	$66\frac{2}{3}\% = \frac{2}{3} = 0.6\overline{6}$
$40\% = \frac{2}{5} = 0.4$	$90\% = \frac{9}{10} = 0.9$	$75\% = \frac{3}{4} = 0.75$	$83\frac{1}{3}\% = \frac{5}{6} = 0.8\overline{3}$