

## Five to Know

**Here are five fractions that every educated person should know:**

<u>Fraction</u>	<u>Decimal</u>	<u>Percent</u>
$\frac{1}{4}$	.25	25 %
$\frac{1}{3}$	.33 $\frac{1}{3}$	33 $\frac{1}{3}$ %
$\frac{1}{2}$	.5	50 %
$\frac{2}{3}$	.66 $\frac{2}{3}$	66 $\frac{2}{3}$ %
$\frac{3}{4}$	.75	75 %

**Here are five area/perimeter formulas that every educated person should know:**

Area of a rectangle:	$A = l \cdot w$	length times width
Perimeter of a rectangle:	$P = 2l + 2w$ or $P = 2(l + w)$	two lengths plus two widths halfway around, twice
Area of a triangle:	$A = \frac{1}{2} b \cdot h$	one half base times height
Area of a circle:	$A = \pi r^2$	pi times radius squared
Circumference of a circle:	$C = 2\pi r$ Or $C = \pi \cdot d$	Circumference means perimeter

**Five more important formulas:**

Pythagorean Theorem:  $a^2 + b^2 = c^2$

→ Distance formula:  $d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$

Midpoint formula:  $\text{midpoint} = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$

Slope formula:  $\text{slope} = \frac{y_1 - y_2}{x_1 - x_2}$  or “change in y” over “change in x”

Distance, rate, time  $d = r \cdot t$  “distance = rate times time”