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Fundamental theorem of calculus:	
If f(x) is continuous from a to b	$\int_a^b f(x)dx = F(b) - F(a)$
	$dF/dx = f(x)$

Mean value theorem:	$f'(c) = \frac{f(b) - f(a)}{b - a}$
Pythagorean theorem:	$a^2 + b^2 = c^2$

Squeeze theorem:	
If...	$g(x) \leq f(x) \leq h(x)$
and	$\lim_{x \to c} g(x) = \lim_{x \to c} h(x)$
then...	$\lim_{x \to c} f(x) = \lim_{x \to c} g(x) = \lim_{x \to c} h(x)$

Average value theorem	$average\ value\ of\ f(x) = \frac{1}{b-a}\int_a^b f(x)dx$
Chain rule (formal definition)	$D\{f(g(x))\} = f'(g(x))g'(x)$

L'Hopital's Rule:	
For functions *f*(*x*) or *g*(*x*) that approach 0 as *x* moves to a number:	$\lim_{x \to c} \frac{f(x)}{g(x)} = \lim_{x \to c} \frac{f'(x)}{g'(x)}$

Rates of Change and Derivatives

Average rate of change	$\frac{\Delta y}{\Delta x} = \frac{f(b) - f(a)}{b - a}$
Instantaneous rate of change	$\frac{f(b) - f(a)}{b - a}$

Equation for a definite integral	$\lim_{\Delta x \to 0} \sum_{k=1}^{n} f(x_k)\Delta x_k = \int_a^b f(x)dx)$
Equation for an indefinite integral	$\int f(x)dx = F(x) + c$

Equation for a unit circle	$x^2 + y^2 = 1$
Equation for an oval	$1 = x^2 + y^2 + xy$

Volume of Basic Shapes

Volume of cones and pyramids	$\frac{h}{3}$(area of the base)
Volume of a cylinder	$V = \pi r^2 h$
Volume of a square:	$h(s^2)$
Volume of a sphere	$\frac{4}{3}\pi r^3$
Volume of a hemisphere	$\frac{1}{2}(\frac{4}{3}\pi r^3)$

Trapezoidal Rule

Area of a trapezoid	$A = \frac{1^1 + w^2}{2 * h}$

Six Trigonometric Functions

- Cosine = adjacent / hypotenuse
- Sine = opposite / hypotenuse
- Tangent = opposite / adjacent
- Cosecant of an angle: hypotenuse / opposite
- Cotangent of an angle: adjacent / opposite
- Secant of an angle: hypotenuse / adjacent

Linear Equations

Point-slope formula	$y - y_1 = m(x - x_1)$

Logarithms

Change of base formula	$\log_{b(a)} = \log_{z(a)} / \log_{z(b)}$