Summative Review!

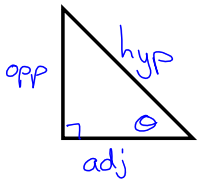
Unit 1
Trigonometry

SOH CAH TOA

Right-Angle Triangles!

$\sin\theta = \frac{opp}{hyp}$ $\cos\theta = \frac{adj}{hyp}$

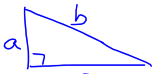
$\tan\theta = \frac{opp}{adj}$



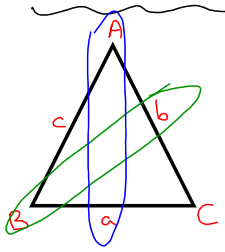
Pythagorean Theorum

$longestSide^2 = otherside^2 + otherside^2$

Ex:

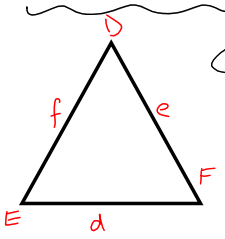


$b^2 = a^2 + c^2$



Sine Law

$\frac{b}{\sin B} = \frac{a}{\sin A}$



Cosine Law

$e^2 = f^2 + d^2 - 2fd\cos E$

OR

$\cos E = \frac{f^2 + d^2 - e^2}{2fd}$

Unit 2
Linear Systems

Substitution

Ex. ① $y = 2x - 3$

② $y = 3x - 2$

Sub ② into ①

$3x - 2 = 2x - 3$

$x = -1$

Sub $x = -1$ into ②

$y = 3(-1) - 2$

$= -3 - 2$

$= -5$

∴ Solution $x = -1$, $y = -5$

OR $(-1, -5)$

Elimination

Ex. $2y = 3x + 4$ ①

$3y = 7x - 3$ ②

① × 3 $6y = 9x + 12$

− ② × 2 $6y = 14x - 6$

$0 = -5x + 18$

$5x = 18$

$x = \frac{18}{5}$

Sub $x = \frac{18}{5}$ into ①

$2y = 3\left(\frac{18}{5}\right) + 4$

$2y = \frac{54}{5} + 4$

$2y = \frac{54}{5} + \frac{20}{5}$

$2y = \frac{74}{5}$

$y = \frac{74}{10}$ ∴ $x = \frac{18}{5}$, $y = \frac{74}{10}$

OR

$\left(\frac{18}{5}, \frac{74}{10}\right)$