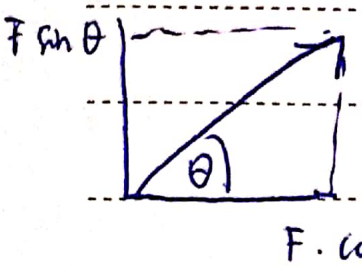
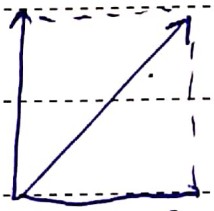
Vector < direction / magnitude



$$\tan\theta = \frac{F_y}{F_x}$$

$$\theta = \arctan\left[\frac{F_y}{F_x}\right]$$

Penjumlahan vector



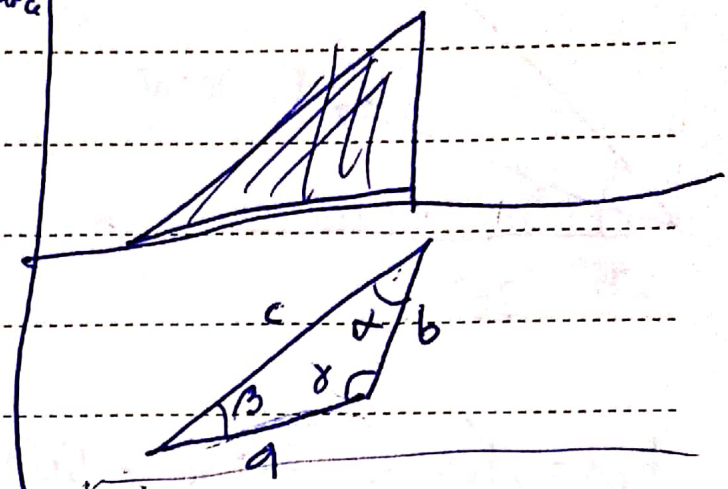
$F_x + F_y = F$

u/ $\theta = 90^\circ$

$$F = \sqrt{F_x^2 + F_y^2}$$

- Statics Bear & Johson
  atau Hibbler
- Engineering Mechanics
  - Popov
  - Bear & Johson

Force Systems



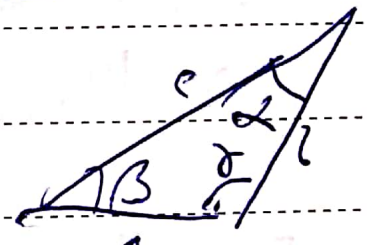
$$\frac{a}{\sin\alpha} = \frac{b}{\sin\beta} = \frac{c}{\sin\gamma}$$

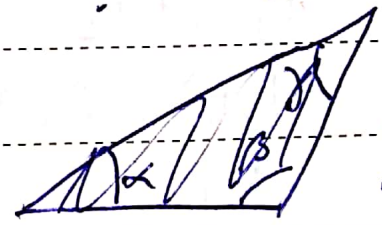
$$a^2 = b^2 + c^2 - 2bc\cos\alpha$$

$$b^2 = a^2 + c^2 - 2ac\cos\beta$$

$$c^2 = b^2 + a^2 - 2ba\cos\gamma$$

Example





$$\frac{a}{\sin\alpha} = \frac{b}{\sin\beta} = \frac{c}{\sin\gamma}$$

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