

3N # 1d

$$\frac{6}{x_1} + \frac{6}{x_2} + \frac{6}{x_3}$$

$$\frac{6x_2x_3 + 6x_1x_3 + 6x_1x_2}{x_1x_2x_3}$$

$$x_1x_2x_3$$

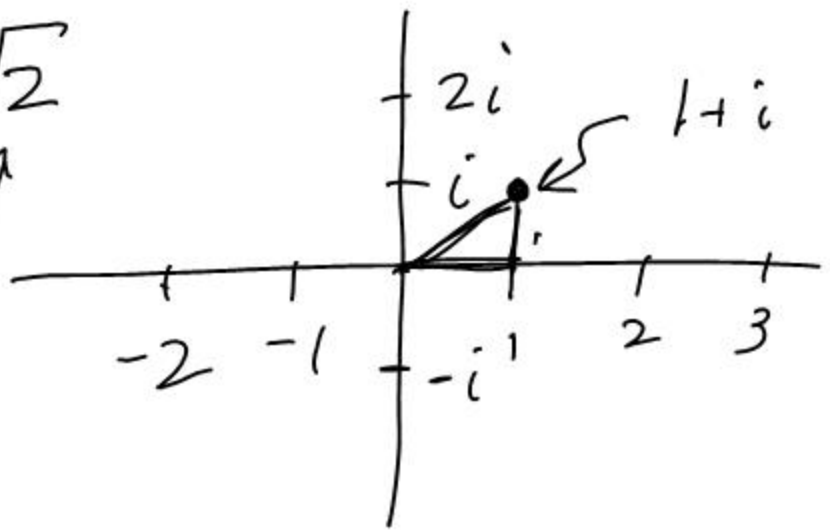
$$\frac{6(x_1x_2 + x_1x_3 + x_2x_3)}{x_1x_2x_3}$$

$$x_1x_2x_3$$

Absolute value

$$|1+i| = \sqrt{2}$$

↑
(1, 1)



no modulus

$$|a+bi| = \sqrt{a^2+b^2}$$

Square roots

$$(\sqrt{3+4i})^2 = (a+bi)^2$$

$$3+4i = a^2 + 2abi - b^2$$

$$3+4i = (a^2 - b^2) + (2ab)i$$



$$\begin{cases} 3 = a^2 - b^2 \\ 4 = 2ab \end{cases} \rightarrow a = \frac{4}{2b} = \frac{2}{b}$$

$$3 = \left(\frac{2}{b}\right)^2 - b^2$$

$$3b^2 = 4 - b^4$$

$$b^4 + 3b^2 - 4 = 0$$

$$~~(b^2 + 4)~~(b^2 - 1) = 0$$

$$\begin{cases} b = 1 \text{ or } b = -1 \\ a = 2 \text{ or } a = -2 \end{cases}$$

$$\underline{2+i} \text{ (or)}$$

$$\underline{-2-i}$$

check

$$\begin{aligned}(2+i)^2 &= (2+i)(2+i) \\ &= 4 + 2i + 2i + i^2 \\ &= 3 + 4i\end{aligned}$$

HW

3F # 2

3G # 3b

3M # 1de

3N # 1, 2

$(r \cdot \text{cis } \theta)^n$

$r^n \cdot \text{cis}(n\theta)$

$\cos \theta + i \sin \theta$