13)

$|p| + |q| \geq |p+q|$ ⟶ Triangle Inequality

$|p| \cdot |q| \geq (p \cdot q)$ ⟶ Cauch - Schwarz Inequality

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$$(|p| + |q|)^2 \geq (|p+q|)^2$$

$$|p|^2 + 2|p||q| + |q|^2 \geq |p+q|^2$$

$$(p \cdot q)$$

$$|p|^2 + 2pq + |q|^2 \geq |p+q|^2$$

$$(|p| + |q|)^2 \geq |p+q|^2$$

$$|p| + |q| \geq |p+q|$$