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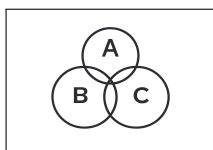
Basic Properties and Facts
Complex Numbers

A



$$i = \sqrt{-1}$$

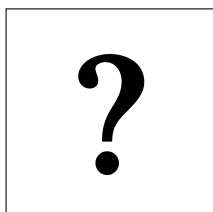
$$\sqrt{-7} = \sqrt{-1 \times 7} = \sqrt{-1} \times \sqrt{7} = \sqrt{7}i$$



$$i = \sqrt{-1}$$

$$i^2 = -1$$

$$\sqrt{-a} = \sqrt{-1 \times a} = \sqrt{-1} \times \sqrt{a} = \sqrt{a}i, a \geq 0$$



$$i = \sqrt{-1}$$

$$\sqrt{-100} = ?$$

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$$i = \sqrt{-1}$$
$$\sqrt{-100} = \sqrt{-1 \times 100} = \sqrt{-1} \times \sqrt{100} = 10i$$