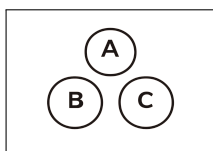


34 Formulas and Identities

Half Angle Formulas

A

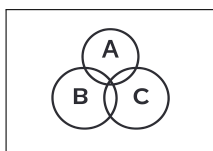


$$\theta = 240^\circ$$

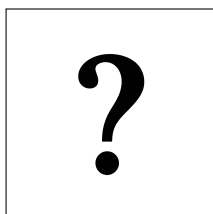
$$\sin(120^\circ) = \sqrt{1 - (-1/2)/2}$$

$$\sin(120^\circ) = \sqrt{3/4}$$

$$\sin(120^\circ) = \sqrt{3}/2$$



$$\sin(\theta/2) = \pm \sqrt{(1 - \cos(\theta))/2}$$



$$\theta = 120^\circ$$

$$\sin(\theta/2) = ?$$

34 Formulas and Identities

Half Angle Formulas

A



$$\theta = 120^\circ$$

$$\sin(\theta/2) = \pm\sqrt{(1 - \cos(\theta))/2}$$

$$\sin(60^\circ) = +\sqrt{(1 - (-1/2))/2}$$

$$\sin(60^\circ) = +\sqrt{(3/2)/2}$$

$$\sin(60^\circ) = +\sqrt{3/4}$$

$$\sin(60^\circ) = \sqrt{3}/2$$