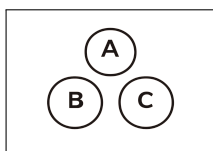


33 Formulas and Identities

Half Angle Formulas

C



$$\theta = 240^\circ$$

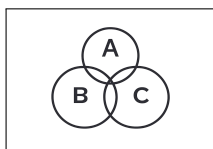
$$\tan(120^\circ) = \pm \sqrt{(1 - \cos(240^\circ)) / (1 + \cos(240^\circ))}$$

$$\tan(120^\circ) = \pm \sqrt{(1 - (-1/2)) / (1 + (-1/2))}$$

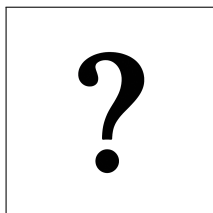
$$\tan(120^\circ) = \pm \sqrt{(3/2) / (1/2)}$$

$$\tan(120^\circ) = \pm \sqrt{3}$$

$$\tan(120^\circ) = -\sqrt{3}$$



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



$$\theta = 120^\circ$$

$$\tan(60^\circ) = ?$$

33 Formulas and Identities

Half Angle Formulas

C



$$\theta = 120^\circ$$

$$\tan(60^\circ) = \pm \sqrt{(1 - \cos(120^\circ)) / (1 + \cos(120^\circ))}$$

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

$$\tan(60^\circ) = \pm \sqrt{(3/2) / (1/2)}$$

$$\tan(60^\circ) = \pm \sqrt{3}$$

$$\tan(60^\circ) = \sqrt{3}$$