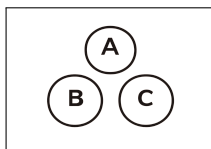


33 Formulas and Identities

Double Angle Formulas

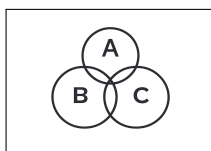
B



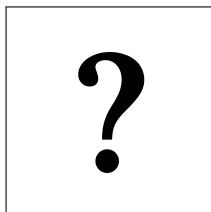
$$\theta = 30^\circ$$

$$\cos(60^\circ) = 1 - 2 \times \sin^2(30)$$

$$\cos(60^\circ) = 1 - 2 \times 1/4 = 1/2$$



$$\cos(2\theta) = 1 - 2 \times \sin^2(\theta)$$



$$\theta = 45^\circ$$

$$\cos(2\theta) = ?$$

33 Formulas and Identities

Double Angle Formulas

B



$$\theta = 45^\circ$$

$$\cos(2\theta) = 1 - 2 \times \sin^2(\theta)$$

$$\cos(90^\circ) = 1 - 2 \times \sin^2(45)$$

$$\cos(90^\circ) = 1 - 2 \times 1/2 = 0$$