

0°	360°
	2π

$$4. \sin 2\theta = 2 \sin \theta \cdot \cos \theta, \frac{2 \tan \theta}{1 + \tan^2 \theta}$$

$$5. \cos 2\theta = \cos^2 \theta - \sin^2 \theta, 2 \cos^2 \theta - 1, 1 - 2 \sin^2 \theta, \frac{1 - \tan \theta}{1 + \tan \theta}$$

$$6. \tan 2\theta = \frac{2 \tan \theta}{1 - \tan \theta}$$

$$7. \sin 3\theta = 3 \sin \theta - 4 \sin^3 \theta$$

$$8. \cos 3\theta = 4 \cos^3 \theta - 3 \cos \theta$$

$$9. \tan 3\theta = \frac{3 \tan \theta - \tan^3 \theta}{1 - 3 \tan^2 \theta}$$

$$1. \sin^2 x + \cos^2 x = 1$$

$$2. 1 + \cot^2 x = \operatorname{cosec}^2 x \quad [\cos^2 x + \cot^2 x = 1]$$

$$3. \tan^2 x + 1 = \sec^2 x \quad [\sin^2 x + \cos^2 x = 1]$$

$$4. \sec^2 x + 1 = \tan^2 x$$

$$1. \frac{\cos x}{\sin x} = \cot x$$

$$2. \frac{\sin x}{\cos x} = \tan x$$

$$\text{iii) } \sin x + \sin y =$$

$$\frac{2 \sin \frac{x+y}{2} \cos \frac{x-y}{2}}$$

$$\text{iv) } \sin x - \sin y =$$

$$\frac{2 \cos \frac{x+y}{2} \sin \frac{x-y}{2}}$$

Trigonometry $\Rightarrow$ 7.3

$$1. 1 + \cos 2\theta = \frac{2 \cos^2 \theta}{2}$$

$$2. 1 - \cos 2\theta = \frac{2 \sin^2 \theta}{2}$$

$$3. 1 + \cos 2\theta = 2 \cos^2 \theta$$

$$4. 1 - \cos 2\theta = 2 \sin^2 \theta$$