

(A) 倒数关系 (Reciprocal)

$$\sin x = \frac{\boxed{}}{\boxed{}}$$

$$\operatorname{cosec} x = \frac{\boxed{}}{\boxed{}}$$

$$\cos x = \frac{\boxed{}}{\boxed{}}$$

$$\sec x = \frac{\boxed{}}{\boxed{}}$$

$$\tan x = \frac{\boxed{}}{\boxed{}}$$

$$\cot x = \frac{\boxed{}}{\boxed{}}$$

(B) 商数关系

$$\tan x = \frac{\boxed{}}{\boxed{}}$$

$$\cot x = \frac{\boxed{}}{\boxed{}}$$

(C) 正角与负角

$$\sin(-x) = \boxed{}$$

$$\cos(-x) = \boxed{}$$

$$\tan(-x) = \boxed{}$$

(D) 三角恒等式(Basic Identities)

$$\sin^2 x + \cos^2 x = \boxed{}$$

$$\sin^2 x = \boxed{} - \boxed{} \boxed{}$$

$$\cos^2 x = \boxed{} - \boxed{} \boxed{}$$

$$1 + \tan^2 x = \boxed{} \boxed{}$$

$$1 + \cot^2 x = \boxed{} \boxed{}$$

(E) 两角之和差公式 (Addition Theorems)

$$\sin(A + B) = \boxed{} \boxed{} \boxed{}$$

$$\sin(A - B) = \boxed{} \boxed{} \boxed{}$$

$$\cos(A + B) = \boxed{} \boxed{} \boxed{}$$

$$\cos(A - B) = \boxed{} \boxed{} \boxed{}$$

$$\tan(A + B) = \frac{\boxed{}}{\boxed{}}$$

$$\tan(A - B) = \frac{\boxed{}}{\boxed{}}$$

(F) 倍角公式 (Double Angle)

$$\sin 2A = \boxed{}$$

$$\cos 2A = \boxed{} \boxed{} \boxed{} \boxed{} \boxed{} \boxed{} \boxed{}$$

$$\cos 2A = \boxed{} \boxed{} \boxed{} \boxed{} \boxed{}$$

$$\cos 2A = \boxed{} \boxed{} \boxed{} \boxed{} \boxed{}$$

$$\tan 2A = \frac{\boxed{}}{\boxed{} \boxed{} \boxed{} \boxed{} \boxed{}}$$

(G) 半角公式 (Half Angle)

$$\sin \frac{A}{2} = \pm \sqrt{\frac{\boxed{}}{\boxed{}}}$$

$$\cos \frac{A}{2} = \pm \sqrt{\frac{\boxed{}}{\boxed{}}}$$

(H) 半角公式 (Half Angle)

$$\sin A =$$

$$\cos A = \frac{\text{adj}}{\text{hyp}}$$

$$\cos A = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\cos A = \frac{\text{adj}}{\text{hyp}}$$