$$
\begin{aligned}
& \text { (29) } 2 \sin \theta \cos \theta+\sqrt{3} \sin \theta=0 \quad 0^{\circ} \leq x<360^{\circ} \\
& \sin \theta(2 \cos \theta+\sqrt{3})=0 \\
& \sin \theta=0 \quad 2 \cos \theta+\sqrt{3}=0 \\
& \theta=0,180^{\circ} \quad \cos \theta=-\frac{\sqrt{3}}{2} \\
& \theta=150^{\circ}, 210^{\circ}
\end{aligned}
$$

$$
\begin{aligned}
& \text { (25) } \begin{array}{l}
\sin x \tan x-\sin x=0 \\
\sin x(\tan x-1)=0 \\
\sin x=0 \quad \tan x-1=0 \\
x=0^{\circ}, 180^{\circ} \quad \tan x=1 \\
x=45,225^{\circ}
\end{array}
\end{aligned}
$$

(21)

$$
\begin{aligned}
& \cos ^{2} x=\cos x \quad \text { princial } \\
& \text { Values } \\
& \cos ^{2} x-\cos x=0 \\
& \cos x(\cos x-1)=0 \\
& \cos x=0 \quad \cos x-1=0 \\
& x=90^{\circ} \quad \\
& \left(x=0^{\circ}\right.
\end{aligned}
$$

(27)

$$
\begin{aligned}
& \text { 7) } \begin{array}{c}
\sin 2 x=-\sin x \\
\sin 2 x+\sin x=0 \\
2 \sin x \cos x+\sin x=0 \\
\sin x(2 \cos x+1)=0 \\
\sin x=0 \quad 2 \cos x+1=0 \\
x=0,180^{\circ} \quad \cos x=-\frac{1}{2} \\
x=120^{\circ}, 240^{\circ}
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& 0 \leq x<360^{\circ} \\
& \sqrt{2} \sin x-1=0 \\
& \sin x=\frac{1}{\sqrt{2}} \\
& \sin x=\frac{\sqrt{2}}{2} \\
& x=45^{\circ}, 135^{\circ}
\end{aligned}
$$

$$
\begin{aligned}
& 0 \leqslant x<2 \pi \\
& \sqrt{2} \sin x-1=0 \\
& \sin x=\frac{1}{\sqrt{2}} \\
& \sin x=\frac{\sqrt{3}}{2} \\
& x=45,1350 \\
& 45 \times \frac{\pi}{180}=\frac{45 \pi}{180}=\frac{\pi}{4} \\
& 135 \times \frac{\pi}{180}=\frac{135 \pi}{180}=\frac{3 \pi}{4}
\end{aligned}
$$

for all real values

$$
\begin{aligned}
& \sqrt{2} \sin x-1=0 \\
& \quad \sin x=\frac{\sqrt{3}}{2} \\
& x=45,135 \\
& x=\frac{\pi}{4}, \frac{3 \pi}{4}
\end{aligned} \quad x=\frac{\pi}{4}+2 \pi k, k=\frac{3 \pi}{4}+2 \pi k, k=\text { integer }
$$

$$
\begin{aligned}
& \text { 10. } 2 \sin ^{2} x=5 \sin x+3 \\
& \left(\stackrel{a x^{2}+b x+c}{>}\right) \\
& 2 \sin ^{2} x-5 \sin x-3=0 \\
& \langle\sin x=3\rangle\langle\sin x+1\rangle=0 \\
& \sin x-3=0 \\
& 2 \sin x+1=0 \\
& \sin x=-\frac{1}{2} \\
& x=210^{\circ}, 330^{\circ} \\
& x=\frac{7 \pi}{6}, \frac{11 \pi}{6} \quad \begin{array}{ll}
210 \times \frac{\pi}{180} & \frac{210 \pi}{150} \\
330 \times \frac{\pi}{180} & \frac{330 \pi}{180}
\end{array}
\end{aligned}
$$

