We can transform this equation using the next trigonometric identities:

$\sec x = \frac{1}{\cos x}$ and $\cos(90° - x) = \sin x$

We have:

$$\frac{1}{\cos(2x)} = 3\cos(2x) + \sin(2x)$$

Since $\sin x = \sqrt{1-\cos^2 x}$ then:

$$\frac{1}{\cos(2x)} = 3\cos(2x) + \sqrt{1-\cos^2(2x)}$$

After the substitution $\cos(2x) = t$ we get the equation:

$$\frac{1}{t} = 3t + \sqrt{1-t^2}$$

The roots of this equation are: $-\frac{\sqrt{2}}{2}$ and $\frac{\sqrt{5}}{5}$

We have two equations for $\cos(2x)$:

$$\cos(2x) = -\frac{\sqrt{2}}{2}$$

$$\cos(2x) = \frac{\sqrt{5}}{5}$$

First equation gives $x = \pm\frac{1}{2}\arccos\left(-\frac{\sqrt{2}}{2}\right) = \pm 67.5°$

From second equation $x = \pm\frac{1}{2}\arccos\left(-\frac{\sqrt{5}}{5}\right) \approx \pm 31.7°$

Answer : $x = \{-67.5°, -31.7°, 31.7°, 67.5°\}$