1. Solve the trigonometric equation.

$$3\tan(x)^2 - 1 = 0 \tag{1}$$

2. Solve the trigonometric equation.

$$2\sin(x)^2 + 3\sin(x) + 1 = 0 \tag{2}$$

3. By drawing find intersection points of functions

$$y_1 = \cos(x) \qquad \textit{and} \qquad y_2 = \frac{1}{2}x \tag{3}$$

4. Simplify trigonometric equation and solve it.

$$\frac{1}{1+\cos(x)} + \frac{1}{1-\cos(x)} = 4 \tag{4}$$