

Q1.

$$\frac{\sec \theta + \tan \theta - 1}{\tan \theta - \sec \theta + 1} = \frac{\cos \theta}{(1 - \sin \theta)}.$$

Q2.

$$(\sin \theta + \operatorname{cosec} \theta)^2 + (\cos \theta + \sec \theta)^2 = (7 + \tan^2 \theta + \cot^2 \theta).$$

Q3.

$$\frac{1}{(\sec \theta - \tan \theta)} - \frac{1}{\cos \theta} = \frac{1}{\cos \theta} - \frac{1}{(\sec \theta + \tan \theta)}.$$

Q4.

$$\frac{\sec \theta + \tan \theta - 1}{\tan \theta - \sec \theta + 1} = \frac{\cos \theta}{(1 - \sin \theta)}.$$

Q5.

$$\sqrt{\frac{\sec \theta - 1}{\sec \theta + 1}} + \sqrt{\frac{\sec \theta + 1}{\sec \theta - 1}} = 2 \operatorname{cosec} \theta.$$

Q6.

$$\frac{\cos^3 \theta + \sin^3 \theta}{\cos \theta + \sin \theta} + \frac{\cos^3 \theta - \sin^3 \theta}{\cos \theta - \sin \theta} = 2$$

Q7. $(1 + \tan 2\theta)(1 - \sin \theta)(1 + \sin \theta) = 1$

Q8.

$$\frac{\cos \theta}{1 - \tan \theta} + \frac{\sin \theta}{(1 - \cot \theta)} = (\cos \theta + \sin \theta)$$

Q9.

$$\frac{\tan A}{(1 - \cot A)} + \frac{\cot A}{(1 - \tan A)} = (1 + \tan A + \cot A)$$

Q10.

$$\frac{\cot A - \cos A}{\cot A + \cos A} = \frac{\operatorname{cosec} A - 1}{\operatorname{cosec} A + 1}$$

