

<p>Q. (i) <math>1 + \frac{\cot^2 \theta}{(1 + \operatorname{cosec} \theta)} = \operatorname{cosec} \theta</math></p> <p>(ii) <math>1 + \frac{\tan^2 \theta}{(1 + \sec \theta)} = \sec \theta</math></p>	
<p>Ans:</p>	

<p>Q. <math>\frac{\cos \theta}{(1 - \tan \theta)} - \frac{\sin^2 \theta}{(\cos \theta - \sin \theta)} = (\cos \theta + \sin \theta)</math></p>	
<p>Ans:</p>	

<p>Q. (i) <math>\sin^6 \theta + \cos^6 \theta = 1 - 3 \sin^2 \theta \cos^2 \theta</math></p> <p>(ii) <math>\sin^2 \theta + \cos^4 \theta = \cos^2 \theta + \sin^4 \theta</math></p> <p>(iii) <math>\operatorname{cosec}^4 \theta - \operatorname{cosec}^2 \theta = \cot^4 \theta + \cot^2 \theta</math></p>	
<p>Ans:</p>	

<p>Q. (i) <math>\frac{\sec \theta - 1}{\sec \theta + 1} = \frac{\sin^2 \theta}{(1 + \cos \theta)^2}</math></p> <p>(ii) <math>\frac{\sec \theta - \tan \theta}{\sec \theta + \tan \theta} = \frac{\cos^2 \theta}{(1 + \sin \theta)^2}</math></p>	
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	Ans:

Q. $\frac{1 + \cos \theta - \sin^2 \theta}{\sin \theta (1 + \cos \theta)} = \cot \theta$	
	Ans:

Q. $\frac{\cos \theta \operatorname{cosec} \theta - \sin \theta \sec \theta}{\cos \theta + \sin \theta} = \operatorname{cosec} \theta - \sec \theta$	
	Ans:

Q. $\frac{(\sin A - \sin B)}{(\cos A + \cos B)} + \frac{(\cos A - \cos B)}{(\sin A + \sin B)} = 0$	
	Ans:

