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Proving Identities II (6.3)

Quiz 9
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Proving Identities II (6.3)

\begin{array}{ll}
\text{HW: } p314 \# lc, 2p, 3c, 7a \\
\text{It)} & \frac{\sin x \cos x - \sin x}{\cos^2 x - 1} \\
\text{2b)} & \frac{\sin^2 x - \cos x}{\sin x + \cos x} = \sin x - \cos x \\
3 & \frac{|\sin x|}{|\sin x|} + \frac{\cos x}{\sin x} (|\cos x|) \\
&= \frac{|\sin x|}{|\cos x|} + \frac{\cos x}{\sin x} (|\cos x|) \\
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7. a) 
$$\frac{\csc x}{2\cos x} = \csc 2x$$

$$|S = \frac{1}{\sin x}$$

$$|S = \frac{1}{2\sin x \cos x}$$

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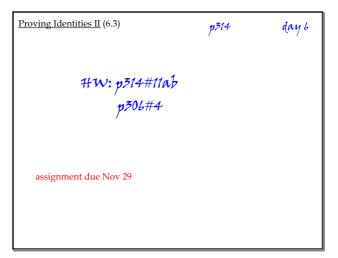
Proving Identities II (6.3)

ex1: Prove that 
$$(1-\sin^2 x)(1-\tan^2 x) = \cos 2x$$
 $(5 = \cos^2 x)(1-\frac{\sin^2 x}{\cos^2 x})$ 
 $(5 = \cos^2 x)(1-\frac{\sin^2 x}{\cos^2 x})$ 

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ex2: Prove that
$$\frac{1 - \cos x}{\sin x} = \frac{\sin x}{1 + \cos x}$$

$$\frac{1 + \cos x}{1 + \cos$$



$$LS = \frac{\sin 2x}{\cos x} + \frac{\cos 2x}{\sin x}$$

$$= \frac{2\sin x\cos x}{\cos x} + \frac{1-2\sin^2 x}{\sin x}$$

$$= \frac{2\sin^2 x}{\sin x} + \frac{1-2\sin^2 x}{\sin x}$$

$$= \frac{2\sin^2 x}{\sin x} + 1-2\sin^2 x$$

$$= \frac{2\sin^2 x}{\sin x} + 1-2\sin^2 x$$

$$= \frac{3\sin^2 x}{\sin x} + 1-3\sin^2 x$$

$$= \frac{3\sin^2 x}{\sin^2 x} + 1-3\sin^2 x$$

$$= \frac{3\sin^2 x}{\sin^2 x} + 1-3\sin^2 x$$

$$= \frac{3\sin^2$$

$$||b||$$

$$LS = (SC^{2}X + SC^{2}X)$$

$$= \int_{Sin^{2}X} + \int_{(Si^{2}X)} = \int_{Sin^{2}X} \cdot \int_{(Si^{2}X)} + \int_{(Si^{2}X)} = \int_{Sin^{2}X} \cdot \int_{(Si^{2}X)} + \int_{(Si^{2}$$