C12 - 6.3 - Proofs Pythag Reciprocal Fractions HW

Prove the left hand side equals the right hand side

$sinxsecx$	$tanx$

$cosxtanx$	$sinx$

$sinxcscx$	1

$cosxcscx$	$cotx$

$cosxsecx$	1

$tanxcscx$	$secx$

$cotxsecx$	$cscx$

$sinxcotx$	$cosx$

$cosxcotx$	$\frac{\cos^2 x}{\sin x}$

$cotxcotx$	$\cot^2 x$

$cosxsinx$	$sinxcosx$

$\sin^2 x$	$sinxsinx$

$tanxsecx$	$\frac{sinx}{\cos^2 x}$

$tanxcotx$	1

Make one up!

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Prove the left hand side equals the right hand side

$\frac{sinx}{tanx}$	$cosx$

$\frac{cosx}{secx}$	$\cos^2 x$

$\frac{1}{cosx}$	$secx$

$\frac{tanx}{sinx}$	$secx$

$\frac{tanx}{cosx}$	$\frac{sinx}{\cos^2 x}$

$\frac{sinx}{sinx}$	1

$\frac{sinx}{cotx}$	$\frac{\sin^2 x}{\cos x}$

$\frac{sinx}{cosx}$	$tanx$

$\frac{cosx}{cotx}$	$sinx$

$\frac{secx}{tanx}$	$cscx$

$\frac{tanx}{cscx}$	$secx$

$\frac{cscx}{cotx}$	$cosx$

C12 - 6.3 - Proofs Pythag Reciprocal Fractions HW

Prove the left hand side equals the right hand side

$cotx + cscx$	$\frac{cosx + 1}{sinx}$

$\frac{1 + sinx}{cosx}$	$secx + tanx$

$sinx + cscx$	$\frac{\sin^2 x + 1}{sinx}$

$sinx + secx$	$\frac{sinxcosx + 1}{cosx}$

$2sinx - \frac{1}{cscx}$	$sinx$

$secx - tanxsinx$	$cosx$

C12 - 6.3 - Proofs Pythag Reciprocal Fractions HW

Prove the left hand side equals the right hand side

$cosx + sinxtanx$	$secx$

$cscx\,cos^2 x + sinx$	$cscx$

$\frac{cosx + cotx}{1 + sinx}$	$cotx$

$\csc^2 x - \frac{cotx}{sinx}$	$\frac{1}{1 + cosx}$

1	$\frac{(1 - \sin^2 x)}{\cos^2 x}$

$\cot^2 x$	$\frac{\cos^2 x}{1 - \cos^2 x}$

C12 - 6.3 - Proofs Pythag Reciprocal Fractions HW

Prove the left hand side equals the right hand side

$1-\frac{1}{\sec^2 x}$	$\sin^2 x$

$1-\frac{1}{\cos^2 x}$	$-\tan^2 x$

$1+\frac{1}{\tan^2 x}$	$\csc^2 x$

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

$cscx\ cos^2 x + sinx$	$cscx$

$secx\ sin^2 x + cosx$	$secx$

C12 - 6.3 - Proofs Add Subtract Foil Factor Pythag WS

Prove the left hand side equals the right hand side

$\frac{(cscx + cotx)(cscx - cotx)}{\sin^2 x}$ | $\csc^2 x$

$\frac{cosx}{1 + sinx} + \frac{1 + sinx}{cosx}$ | $2secx$

$\frac{1}{1 - cosx} + \frac{1}{1 + cosx}$ | $2\csc^2 x$

$\frac{cosx}{1 - cosx} - \frac{cosx}{1 + cosx}$ | $2\cot^2 x$

$\frac{1}{1 - cosx} - \frac{1}{1 + cosx}$ | $2cotxcscx$

$(sinx - cosx)^2$ | $1 - 2sinxcosx$

C12 - 6.3 - Proofs Add Subtract Foil Factor Pythag WS

Prove the left hand side equals the right hand side

$cosx - cotx$	$cotx(sinx - 1)$

$secx\ sin^2 x + cosx$	$secx$

$3 - sin^2 x$	$2 + \cos^2 x$

$sinx - cscx$	$\frac{-\cos^2 x}{sinx}$

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

$\frac{1 + sinx}{1 + cscx}$	$\frac{sinx}{1 - sinx}$

C12 - 6.3 - Proofs Add Subtract Comp Frac Pythag WS

Prove the left hand side equals the right hand side

$\frac{cosx+1}{sinx}$	$1+\frac{1}{\frac{cosx}{tanx}}$

$\frac{1+\frac{1}{sinx}}{cotx}$	$\frac{1+sinx}{cosx}$

$\frac{cscx}{1+\frac{1}{sinx}}$	$\frac{1}{1+sinx}$

$\frac{cosx}{1+sinx}$	$\frac{cotx}{1+\frac{1}{sinx}}$

$\frac{cscx}{1+\frac{cosx}{sinx}}$	$\frac{1}{sinx+cosx}$

$\frac{1}{1+tanx}$	$\frac{cosx}{sinx+cosx}$

C12 - 6.3 - Proofs Add Subtract Comp Frac Pythag WS

Prove the left hand side equals the right hand side

$\frac{1+sinx}{1+cscx}$ | $sinx$

$cosx$ | $\frac{1+cosx}{1+secx}$

$\frac{1+secx}{1+cscx}+1$ | 2

$\frac{1+cotx}{1+tanx}$ | $cotx$

$\frac{cscx+secx}{cotx+1}$ | $secx$

$cscx$ | $\frac{cscx+secx}{tanx+1}$