1 $\tan x \sin x + \cos x = \sec x$	2 $\cot x + \tan x = \csc x \sec x$
1 📖 $\frac{\sin x}{\cos x} \cdot \sin x + \cos x =$	2 ☎ $\frac{\cos x}{\sin x} + \frac{\sin x}{\cos x} =$
1 💻 $\frac{\sin^2 x}{\cos x} + \cos x =$	2 🔔 $\frac{\cos^2 x}{\sin x \cos x} + \frac{\sin^2 x}{\sin x \cos x} =$
1 🏳 $\frac{\sin^2 x}{\cos x} + \frac{\cos^2 x}{\cos x} =$	2 💻 $\frac{\cos^2 x + \sin^2 x}{\sin x \cos x} =$
1 🔔 $\frac{\sin^2 x + \cos^2 x}{\cos x} =$	2 🏳 $\frac{1}{\sin x \cos x} =$
1 ☺ $\frac{1}{\cos x} =$	2 ☺ $\frac{1}{\sin x} \cdot \frac{1}{\cos x} =$
1 ☎ $\sec x =$	2 📖 $\csc x \sec x$

3 $$\cos^2 x = \frac{\csc x \cos x}{\tan x + \cot x}$$	4 $$1 - 2\cos^2 x = \frac{\tan^2 x - 1}{\tan^2 x + 1}$$
3 $$= \frac{\frac{1}{\sin x} \cdot \cos x}{\frac{\sin x}{\cos x} + \frac{\cos x}{\sin x}}$$	4 $$= \frac{\frac{\sin^2 x}{\cos^2 x} - 1}{\sec^2 x}$$
3 $$= \frac{\frac{\cos x}{\sin x}}{\frac{\sin^2 x}{\sin x \cos x} + \frac{\cos^2 x}{\sin x \cos x}}$$	4 $$= \frac{\frac{\sin^2 x}{\cos^2 x} - \frac{\cos^2 x}{\cos^2 x}}{\frac{1}{\cos^2 x}}$$
3 $$= \frac{\frac{\cos x}{\sin x}}{\frac{\sin^2 x + \cos^2 x}{\sin x \cos x}}$$	4 $$= \frac{\sin^2 x - \cos^2 x}{\cos^2 x} \cdot \frac{\cos^2 x}{1}$$
3 $$= \frac{\frac{\cos x}{\sin x}}{\frac{1}{\sin x \cos x}}$$	4 $$= \sin^2 x - \cos^2 x$$
3 $$= \frac{\cos x}{\sin x} \cdot \frac{\sin x \cos x}{1}$$	4 $$= 1 - \cos^2 x - \cos^2 x$$
3 $$= \cos^2 x$$	4 $$= 1 - 2\cos^2 x$$

5 $$\frac{\tan^2 x}{\tan^2 x + 1} = \sin^2 x$$	6 $$\frac{\sin^4 x - \cos^4 x}{\sin x - \cos x} = \sin x + \cos x$$
5 $$\frac{\tan^2 x}{\sec^2 x} =$$	6 $$\frac{(\sin^2 x - \cos^2 x)(\sin^2 x + \cos^2 x)}{\sin x - \cos x} =$$
5 $$\frac{\frac{\sin^2 x}{\cos^2 x}}{\frac{1}{\cos^2 x}} =$$	6 $$\frac{(\sin^2 x - \cos^2 x)(1)}{\sin x - \cos x} =$$
5 $$\frac{\sin^2 x}{\cos^2 x} \cdot \frac{\cos^2 x}{1} =$$	6 $$\frac{(\sin x - \cos x)(\sin x + \cos x)}{\sin x - \cos x} =$$
5 $$\sin^2 x =$$	6 $$= \sin x + \cos x$$

7 $$\frac{\cos x}{1+\sin x}+\frac{1+\sin x}{\cos x}=2\sec x$$	8 $$\frac{\cos x}{1-\sin x}-\frac{\cos x}{1+\sin x}=2\tan x$$
7 $$\frac{\cos^2 x}{\cos x\,(1+\sin x)}+\frac{(1+\sin x)(1+\sin x)}{\cos x\,(1+\sin x)}=$$	8 $$\frac{(1+\sin x)\cos x}{(1+\sin x)(1-\sin x)}-\frac{\cos x\,(1-\sin x)}{(1+\sin x)(1-\sin x)}=$$
7 $$\frac{\cos^2 x+1+2\sin x+\sin^2 x}{\cos x\,(1+\sin x)}=$$	8 $$\frac{\cos x+\sin x\cos x}{1-\sin^2 x}-\frac{\cos x-\sin x\cos x}{1-\sin^2 x}=$$
7 $$\frac{2+2\sin x}{\cos x\,(1+\sin x)}=$$	8 $$\frac{\cos x+\sin x\cos x-\cos x+\sin x\cos x}{1-\sin^2 x}=$$
7 $$\frac{2(1+\sin x)}{\cos x\,(1+\sin x)}=$$	8 $$\frac{2\sin x\cos x}{\cos^2 x}=$$
7 $$\frac{2}{\cos x}=$$	8 $$\frac{2\sin x}{\cos x}=$$
7 $$2\sec x=$$	8 $$2\tan x=$$

PUZZLE PROOFS ANSWERS

1	2	3	4	5	6	7	8
1📖	2☎	3📖	4💻	5⚑	6📖	7⚑	8🔔
1💻	2🔔	3🔔	4📖	5🔔	6💻	7🔔	8💻
1⚑	2💻	3☎	4☺	5📖	6🔔	7☎	8☺
1🔔	2⚑	3☺	4☎	5💻	6☺	7☺	8📖
1☺	2☺	3💻	4⚑			7💻	8☎
1☎	2📖	3⚑	4🔔			7📖	8⚑