Verify the following identities….Show ALL work on another piece of paper.

1. $\sin\theta\csc\theta = 1$
2. $\cot\theta\sin\theta = \cos\theta$
3. $\tan\theta\csc\theta = \sec\theta$
4. $\tan^2\theta\cos^2\theta = \sin^2\theta$
5. $\cos\theta\csc\theta\tan\theta = 1$
6. $\dfrac{\sin^2\theta}{1-\cos^2\theta} = 1$
7. $\sin\theta(\csc\theta - \sin\theta) = \cos^2\theta$
8. $\dfrac{1+\tan^2\theta}{\tan^2\theta} = \csc^2\theta$
9. $\dfrac{\csc\theta}{\sin\theta} - \dfrac{\cot\theta}{\tan\theta} = 1$
10. $\dfrac{1-\cos^2\theta}{1-\cos\theta} - 1 = \cos\theta$
11. $\dfrac{1-\sin^2\theta}{1-\cos^2\theta} = \cot^2\theta$
12. $\sin^4\theta - \cos^4\theta = \sin^2\theta - \cos^2\theta$
13. $\dfrac{\sin\theta(\csc^2\theta - \cot^2\theta)}{\cos\theta\sec\theta} = \sin\theta$
14. $\dfrac{\sin\theta}{\tan\theta} - \dfrac{\tan\theta}{\sec\theta} = \cos\theta - \sin\theta$
15. $\tan\theta + 1 = (\tan\theta + 1)(\sec^2\theta - \tan^2\theta)$
16. $\dfrac{\tan\theta + \sin\theta}{\cos\theta + 1} = \tan\theta$
17. $\dfrac{\sec\theta - \cos\theta}{\tan^2\theta} = \cos\theta$
18. $(2-\cot\theta)^2 + (1+2\cot\theta)^2 = 5\csc^2\theta$

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5. $\cos\theta\csc\theta\tan\theta = 1$
6. $\dfrac{\sin^2\theta}{1-\cos^2\theta} = 1$
7. $\sin\theta(\csc\theta - \sin\theta) = \cos^2\theta$
8. $\dfrac{1+\tan^2\theta}{\tan^2\theta} = \csc^2\theta$
9. $\dfrac{\csc\theta}{\sin\theta} - \dfrac{\cot\theta}{\tan\theta} = 1$
10. $\dfrac{1-\cos^2\theta}{1-\cos\theta} - 1 = \cos\theta$
11. $\dfrac{1-\sin^2\theta}{1-\cos^2\theta} = \cot^2\theta$
12. $\sin^4\theta - \cos^4\theta = \sin^2\theta - \cos^2\theta$
13. $\dfrac{\sin\theta(\csc^2\theta - \cot^2\theta)}{\cos\theta\sec\theta} = \sin\theta$
14. $\dfrac{\sin\theta}{\tan\theta} - \dfrac{\tan\theta}{\sec\theta} = \cos\theta - \sin\theta$
15. $\tan\theta + 1 = (\tan\theta + 1)(\sec^2\theta - \tan^2\theta)$
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