MTH 30 Trig Identities (Ojakian)

1. $\tan(\theta) = \dfrac{\sin(\theta)}{\cos(\theta)}$ *(Quotient Identity I)*

2. $\cot(\theta) = \dfrac{\cos(\theta)}{\sin(\theta)}$ *(Quotient Identity II)*

3. $\sec(\theta) = \dfrac{1}{\cos(\theta)}$ *(Reciprocal Identity I)*

4. $\csc(\theta) = \dfrac{1}{\sin(\theta)}$ *(Reciprocal Identity II)*

5. $\cot(\theta) = \dfrac{1}{\tan(\theta)}$ *(Reciprocal Identity III)*

6. $\sin^2(\theta) + \cos^2(\theta) = 1$ *(Pythagorian Identity I)*

7. $1 + \tan^2(\theta) = \sec^2(\theta)$ *(Pythagorian Identity II)*

8. $1 + \cot^2(\theta) = \csc^2(\theta)$ *(Pythagorian Identity III)*

9. $\sin(-\theta) = -\sin(\theta)$ *(Odd/Even Identity I)*

10. $\cos(-\theta) = \cos(\theta)$ *(Odd/Even Identity II)*

11. $\tan(-\theta) = -\tan(\theta)$ *(Odd/Even Identity III)*

12. $\sin(\theta) = \cos(\frac{\pi}{2} - \theta)$ *(Cofunction Identity I)*

13. $\cos(\theta) = \sin(\frac{\pi}{2} - \theta)$ *(Cofunction Identity II)*

14. $\cos(A + B) = \cos(A)\cos(B) - \sin(A)\sin(B)$ *(Sum Formula for Cosine)*

15. $\cos(A - B) = \cos(A)\cos(B) + \sin(A)\sin(B)$ *(Difference Formula for Cosine)*

16. $\sin(A + B) = \sin(A)\cos(B) + \cos(A)\sin(B)$ *(Sum Formula for Sin)*

17. $\sin(A - B) = \sin(A)\cos(B) - \cos(A)\sin(B)$ *(Difference Formula for Sin)*