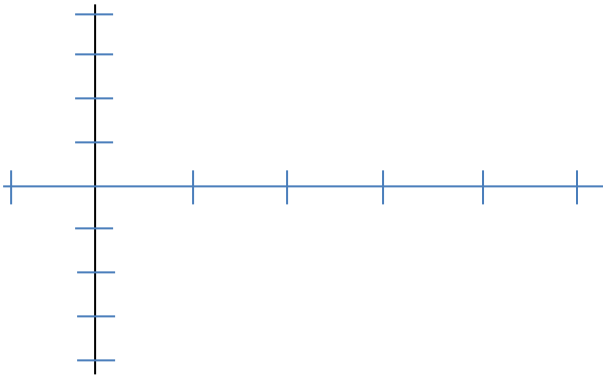
Trigonometry T9: Trig Identities

For the following functions:

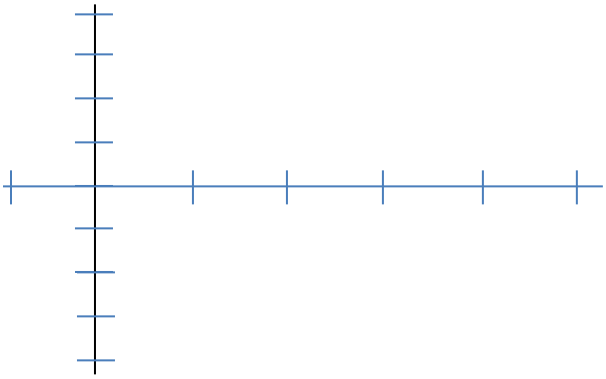
A. State the Amplitude, Period, Midline and Phase Shift.

B. Graph

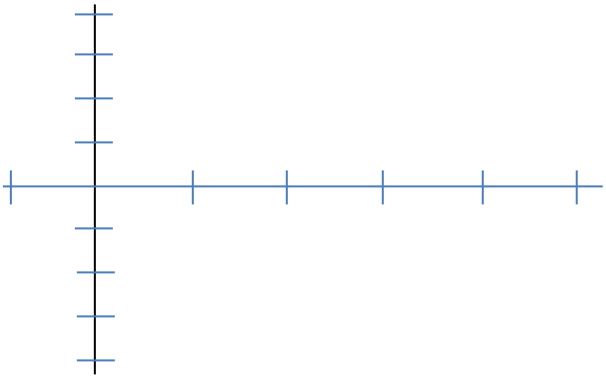
1. $y = 4sinx$



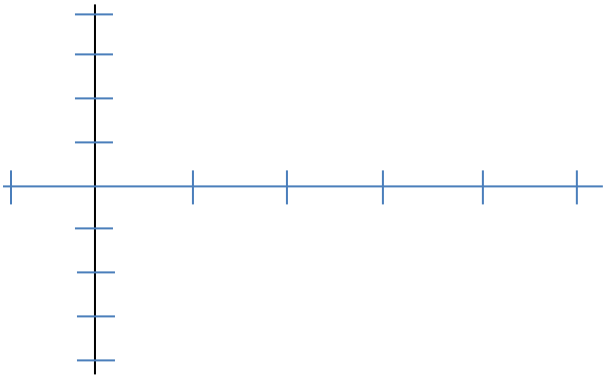
2. $y = 2sinx - 3$



3. $y = -cos2x$



4. $y = \cos(x - 90°) + 1$



Simplify the following expressions:

5. $cos\theta csc\theta$

6. $sin\theta cot\theta$

7. $2(csc^2\theta - cot^2\theta)$

8. $\frac{sin\theta csc\theta}{cot\theta}$

9. $\frac{1-cos^2\theta}{sin^2\theta}$

10. Verify the following identity: $cos^2\theta + tan^2\theta cos^2\theta = 1.$