1. Solve the following equation algebraically for the given domain. Show all work.

$$6\cos x \sin x = 1 \qquad x\epsilon[0, 2\pi]$$

2. Solve the following equation algebraically for the given domain. Show all work.

$$\sin^2\theta = \frac{1}{2} \qquad \theta\epsilon[0, 360°]$$

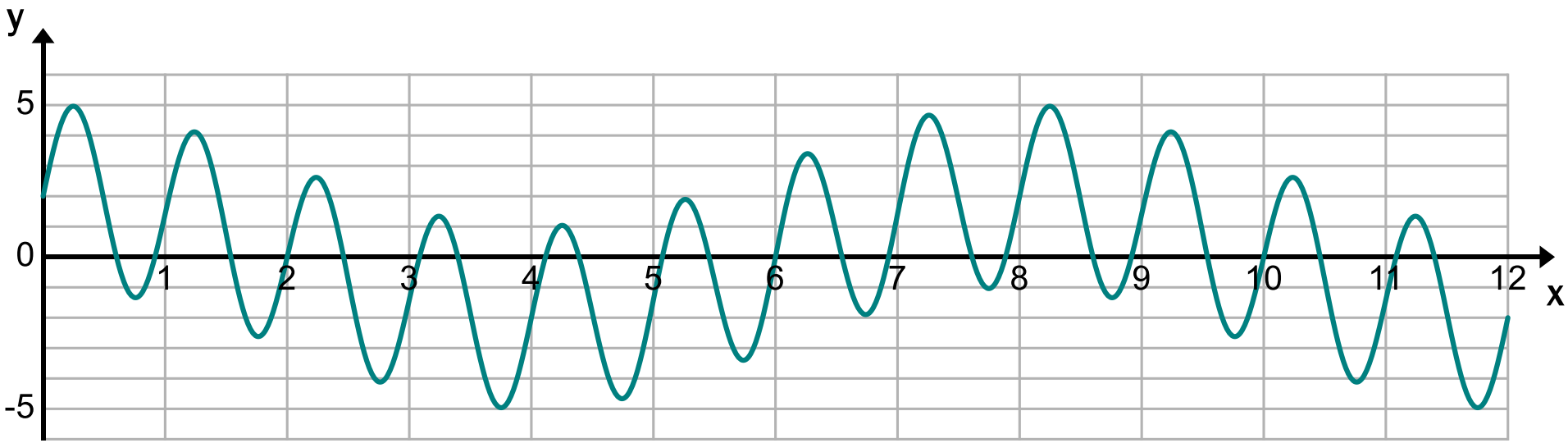
3. Solve the following equation algebraically for the given domain. Show all work.

$$\cos^2 x - \sin^2 x = 1 \qquad x \epsilon [0, 2\pi]$$

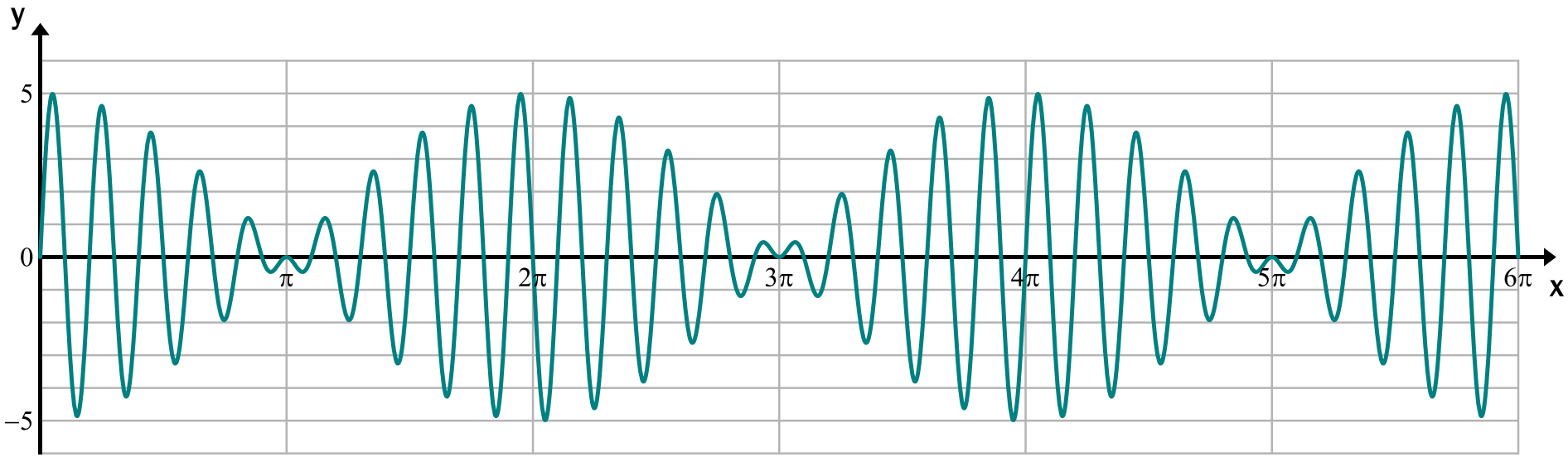
4. Solve the following equation algebraically for the given domain. Show all work.

$$\frac{2tan\theta}{1-\tan^2\theta} = 4 \qquad \theta\epsilon[0, 300°]$$

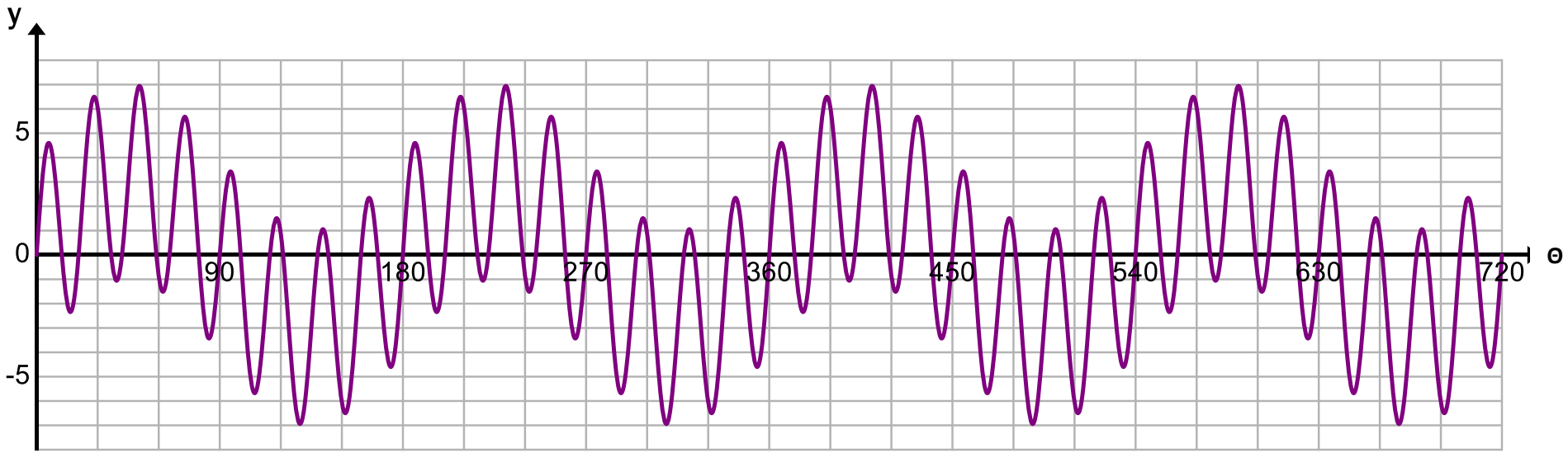
5. Write the equation for the sinusoid below.



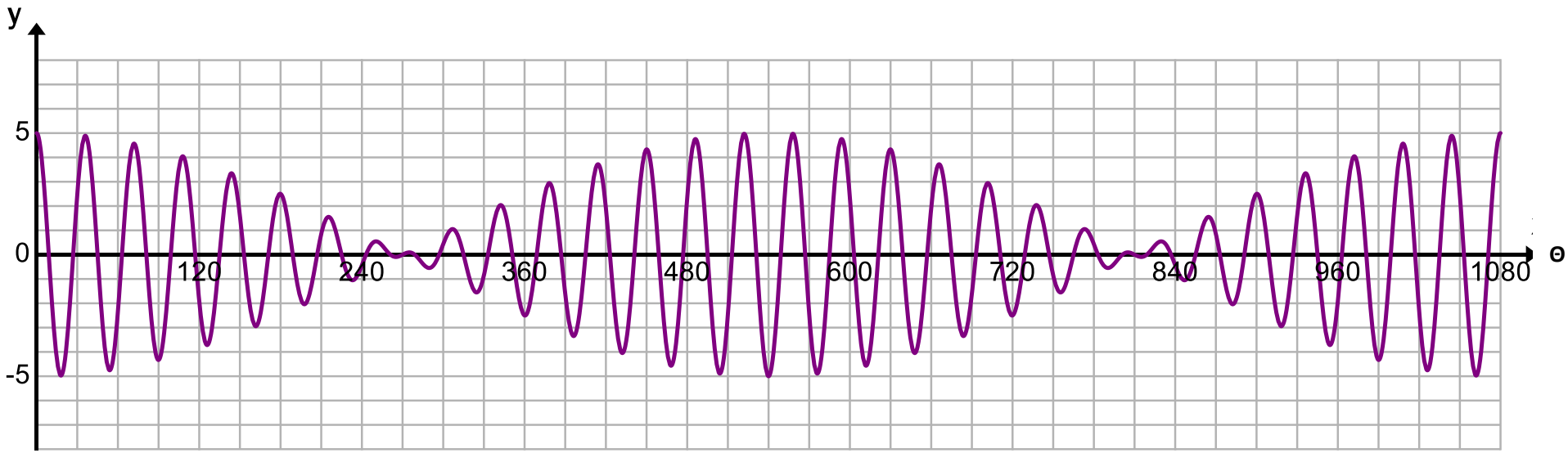
6. Write the equation for the sinusoid below.



7. Write the equation for the sinusoid below.



8. Write the equation for the sinusoid below.



9. If $cosA = \frac{4}{5}$ and $A\epsilon(630°, 720°)$, find $\sin(2A)$.

10. If $cosA = \frac{4}{5}$ and $A\epsilon(630°, 720°)$, find $\cos\left(\frac{1}{2}A\right)$.

11. If $cosA = \frac{4}{5}$ and $A\epsilon(630°, 720°)$, find $\tan\left(\frac{1}{2}A\right)$.