

Exam Review: Graphing Sinusoidal Functions

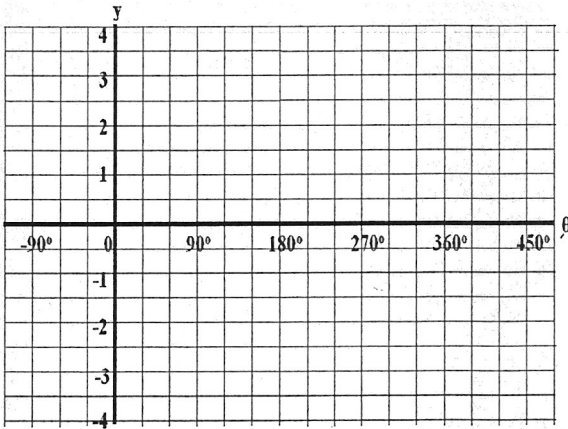
1. Determine the amplitude, period, phase, vertical displacement, domain and range for the sinusoid represented by the equation:

$$y = 4\sin(2\theta - 8) + 3$$

2. Graph the following sinusoids and define the domain and range.

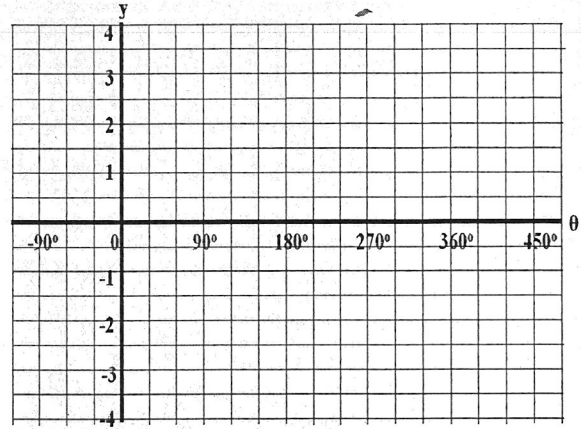
a) $y = 2 \sin(2\theta - 180) + 1$

b) $y = 3 \cos(-3\theta + 90) - 1$



Domain:

Range:

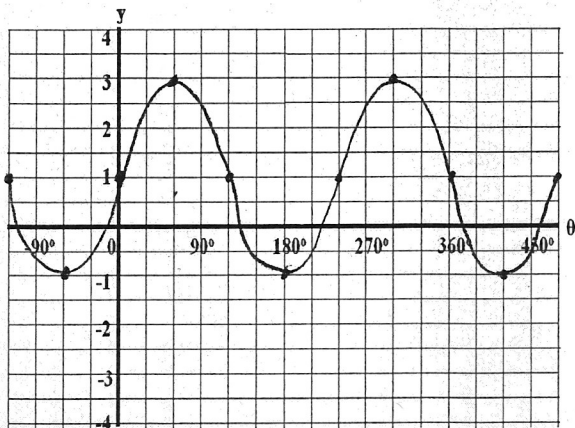


Domain:

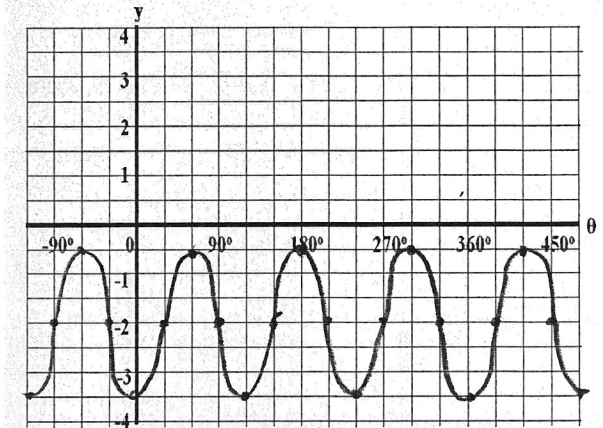
Range:

3. Create an equation to represent the sinusoid in the graph below:

a)



b)



4. A marker is placed on the end of one of the blades of a windmill. When this marker is at its lowest point, it is 8 m above the ground. At its highest point the marker is 38 m above the ground. The windmill rotates once every 6 seconds. If the marker starts from its lowest point, what will its height be in 10 seconds?