

5. State the period for each periodic function, in degrees and in radians. Sketch the graph of each function.

a)  $y = \sin 4\theta$

c)  $y = \sin \frac{2}{3}x$

$$\frac{2\pi}{4} = \frac{\pi}{2}$$

b)  $y = \cos \frac{1}{3}\theta$

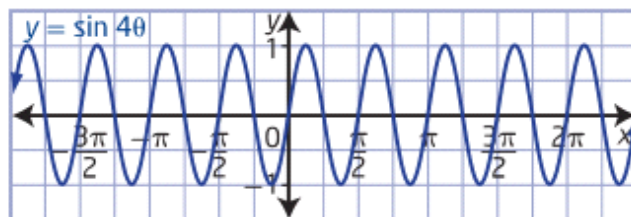
d)  $y = \cos 6x$

$$\frac{2\pi}{6} = \frac{\pi}{3}$$

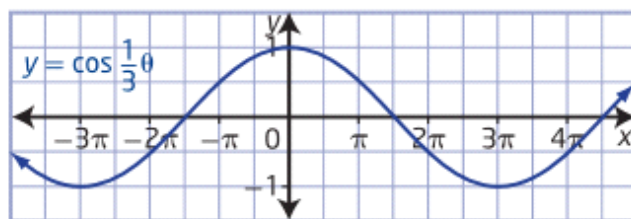
$$\frac{2\pi}{\frac{1}{3}} = 2\pi \cdot \frac{3}{1} = 6\pi$$

$$\frac{2\pi}{\frac{2}{3}} = 2\pi \cdot \frac{3}{2} = 3\pi$$

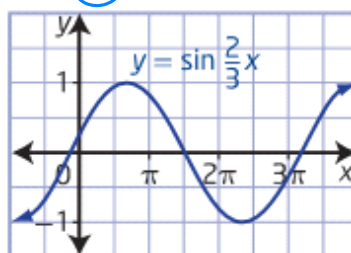
5. a)  $\frac{\pi}{2}$  or  $90^\circ$



b)  $6\pi$  or  $1080^\circ$



c)  $3\pi$  or  $540^\circ$



d)  $\frac{\pi}{3}$  or  $60^\circ$

