Graph 1 period of the function

$$1.\ y = -4\sin\left(\frac{2}{3}x - \frac{\pi}{3}\right) - 1$$

Graph 1 period of the function

$$2.\ y = 4\cos\left(2\pi x - \frac{\pi}{2}\right)$$

Graph 1 period of the function

$$3.\ y = 3\sec\left(\frac{\pi x}{2} + \frac{\pi}{2}\right) - 3$$

Graph 1 period of the function

$$4.\ y = 5\csc(3x - \pi) + 1$$

Graph 2 periods of the function

$$5.\ y = \tan\left(4x - \frac{\pi}{2}\right) + 1$$

Graph 2 periods of the function

$$6.\ \mathrm{y} = \cot \pi\left(x - \frac{1}{4} \right) + 1$$

Construct a sinusoid with the given amplitude and period that goes through the given point.

- Amp: 4, period $\frac{\pi}{5}$ point (0, 0)

Construct a sinusoid with the given amplitude and period that goes through the given point.

- Amp: 3, period 6 point (3, 0)

February 12th, 2016, high tide occurred at 4:15 pm. At that time the water was 2.5 meters deep. Low tide occurred at 7:45 a.m, at which time the water was only 1.2 meters deep. Assume that the depth of the water is a sinusoidal function of time with a period of about 12 hrs

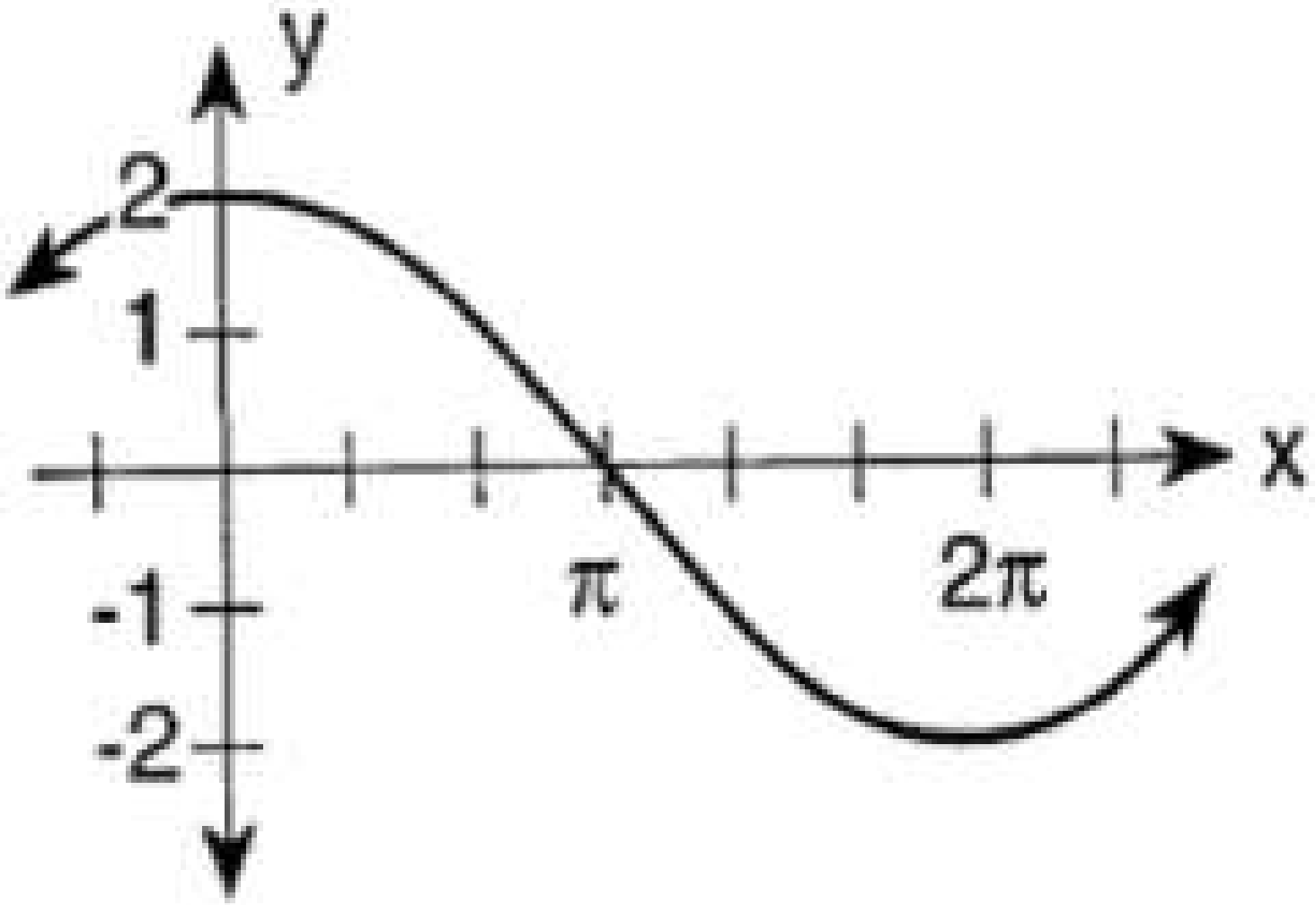
a) Model the depth, D, as a sinusoidal function of time, t, algebraically then graph the function.

b) At what time did the first low tide occur?

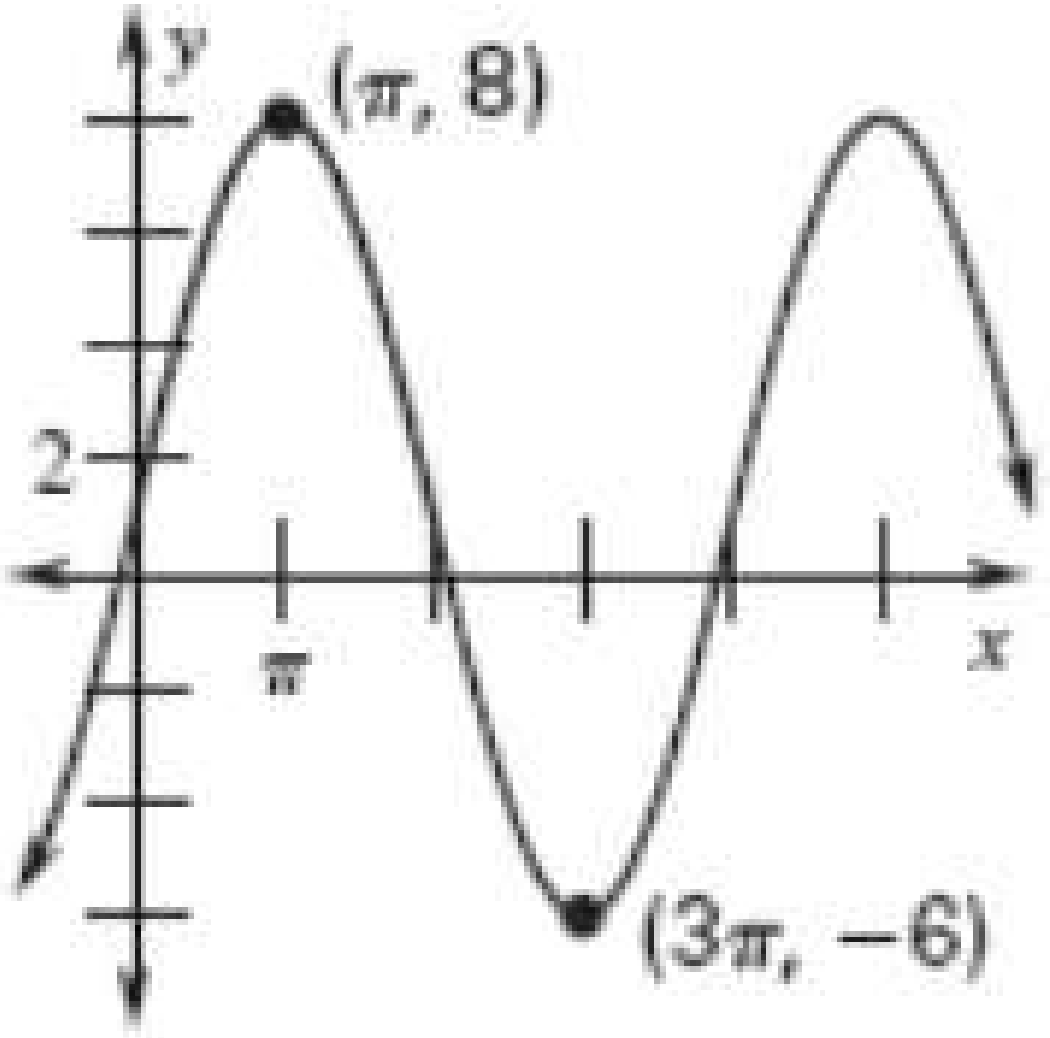
c) What was the approximate depth of the water at 6:00 am and at 3:00 pm?

d) What was the first time on this day when the water was 2 meter deep?

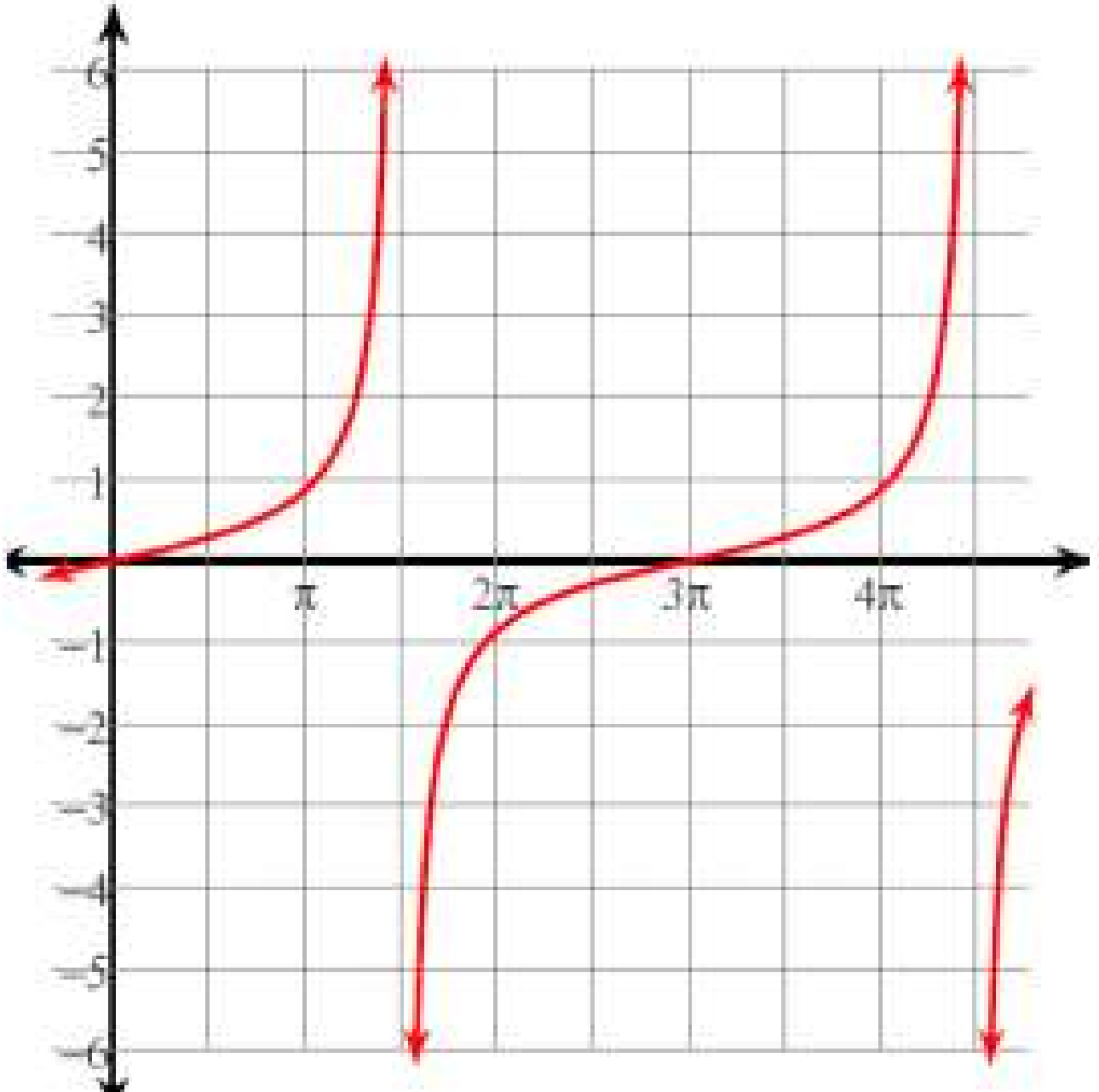
Determine a sine and a cosine equation for the graph below



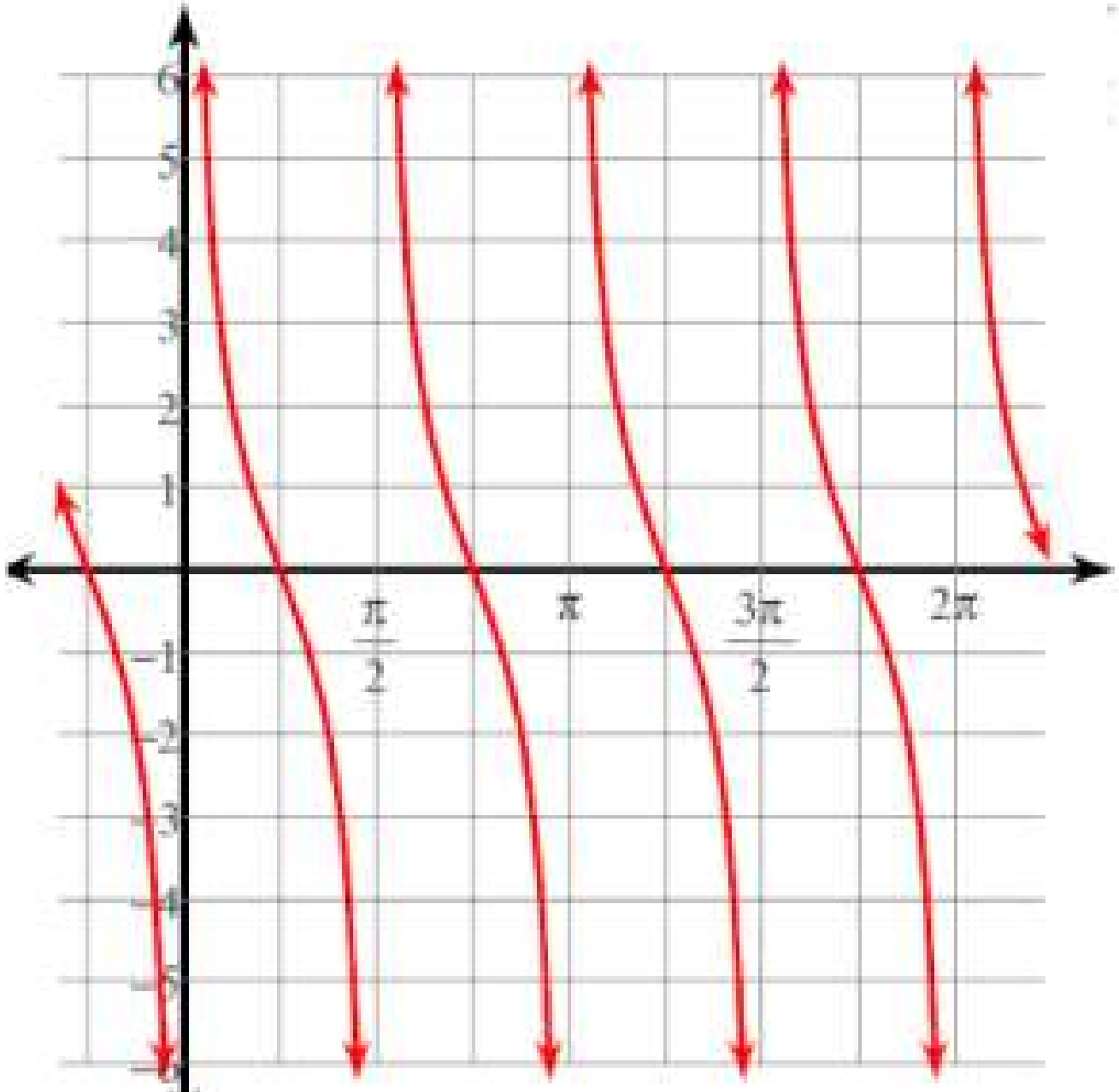
Determine a sine and a cosine equation for the graph below



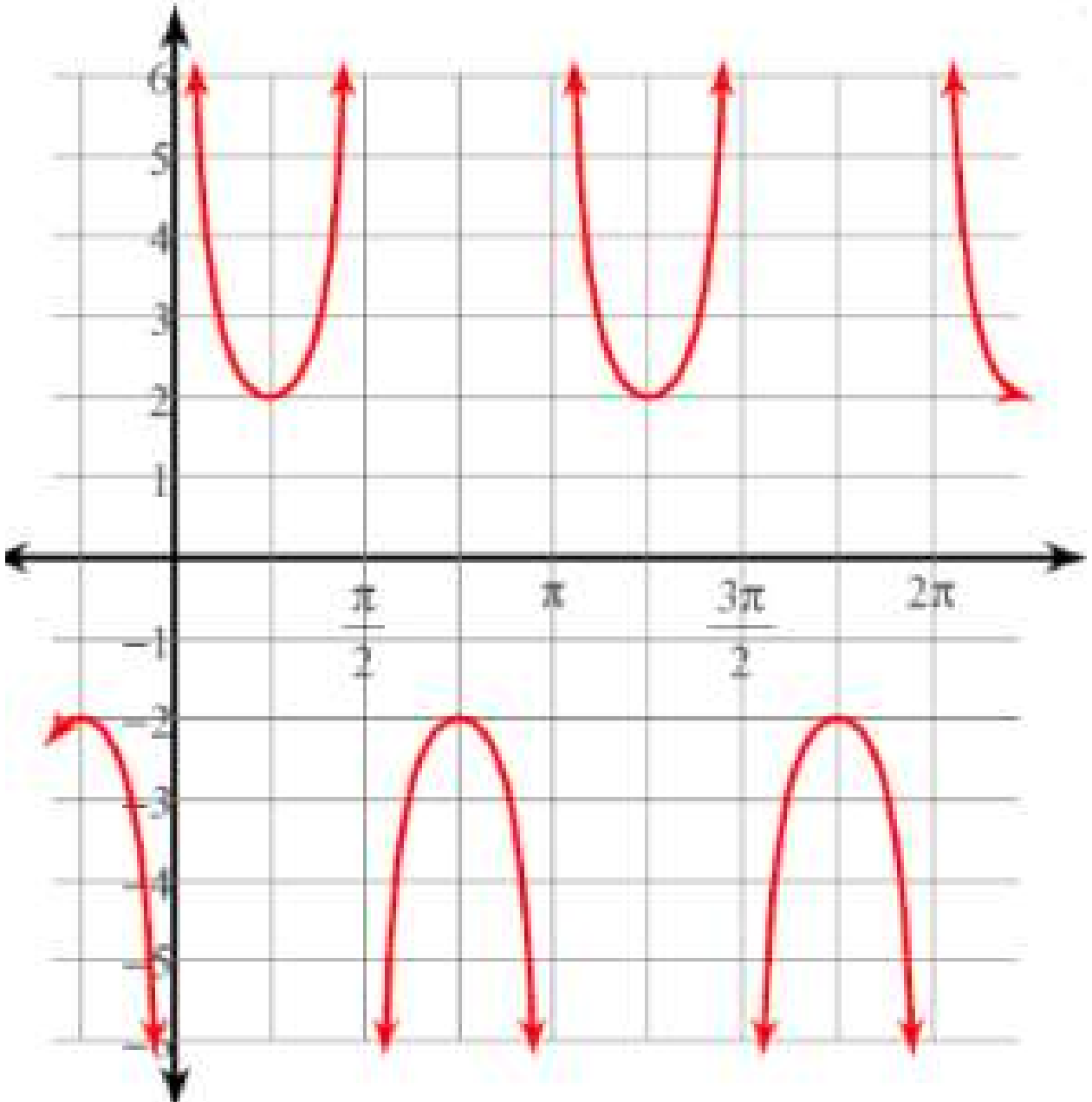
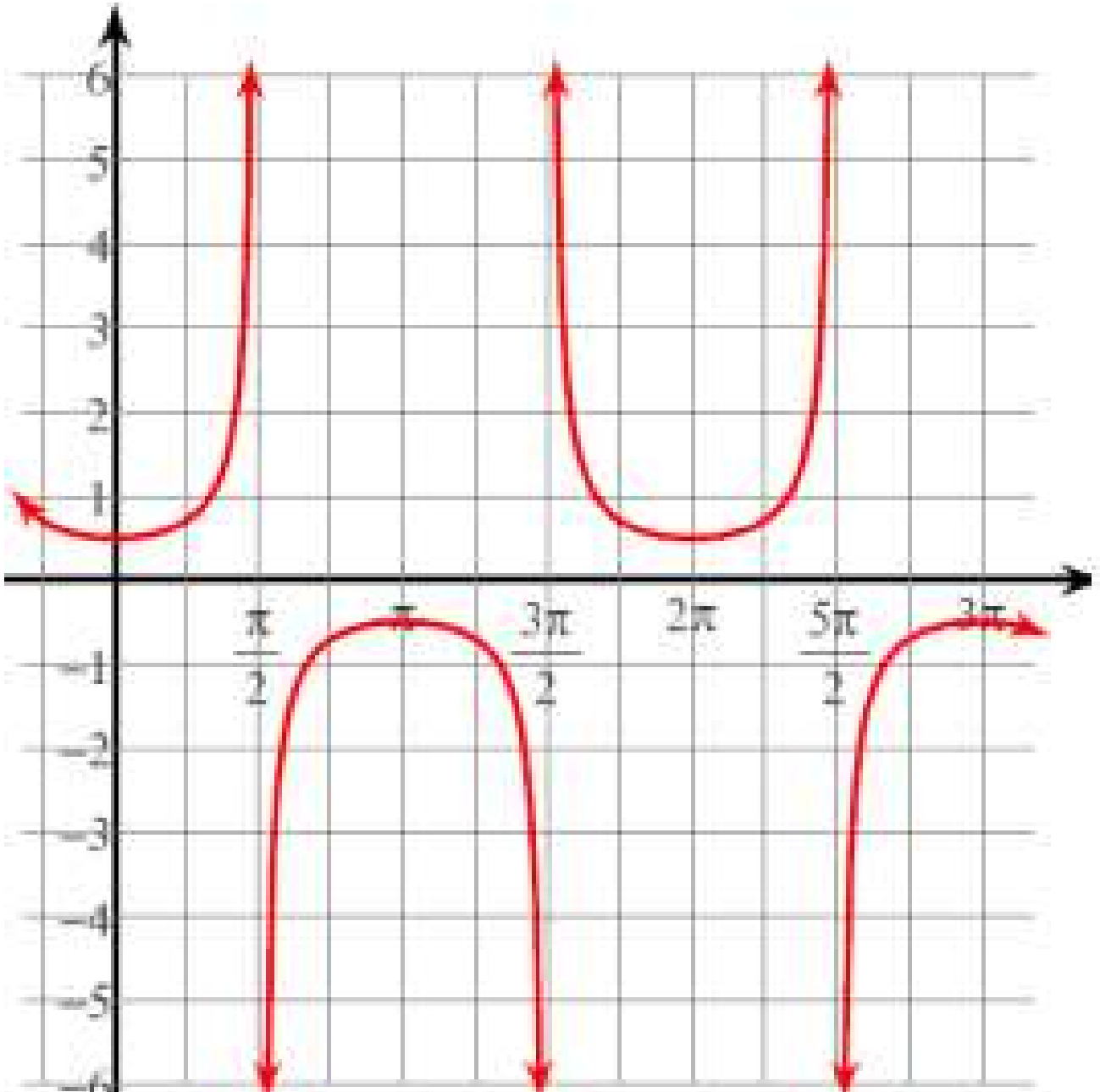
Determine a tangent equation for the graph below



Determine a cotangent equation for the graph below



Write a cosecant equation for the periodic function.



Write a cosecant equation for the periodic function.