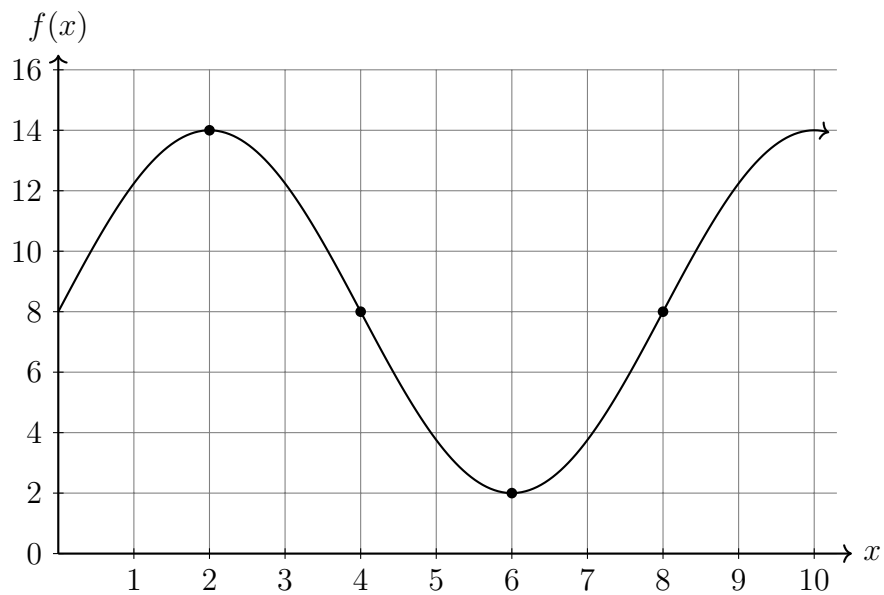
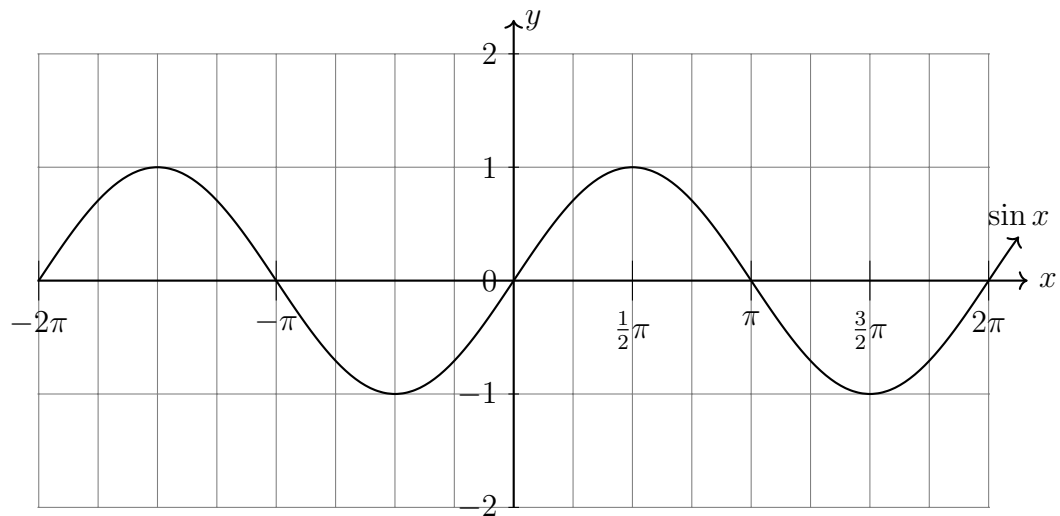


Prep #26 Periodic functions

1. A periodic function $f(x)$ is shown on the graph below.
 - (a) Write down the amplitude, period, and midline equation of the function.
 - (b) Write the equation for $f(x)$.



2. The function $f(x) = \sin x$ is shown. Graph $g(x) = \cos x$.



Which function is “even”? Which is “odd”? Justify your answer.

3. Find the exact value of each trigonometric ratio. (not a decimal)

(a) $\sin \frac{1}{3}\pi$

(c) $\tan \frac{1}{6}\pi$

(b) $\cos \frac{1}{2}\pi$

(d) $\cos(-\frac{1}{2}\pi)$

4. Solve the system of equations algebraically.

(hint: substitute the value of y from the second equation into the first equation)

$$(x - 2)^2 + (y - 1)^2 = 5$$

$$y = x - 2$$