| MODULE 9 | THE TRIGONOMETRIC FUNCTIONS |

Name:_____ Points:_____

Exercise 1. Find the trigonometric function values.

(a) $\sin(120°) =$

(b) $\cos\left(-\frac{7\pi}{4}\right) =$

(c) $\tan\left(\frac{5\pi}{3}\right) =$

(d)   Assume that $\sin(\alpha) = \frac{3}{5}$, $\cos(\alpha) = \frac{4}{5}$. Find $\tan(\alpha) =$

(e)   Assume that $\cos(\beta) = -\frac{5}{13}$, and that β is in quadrant III. Find $\sin(\beta) =$
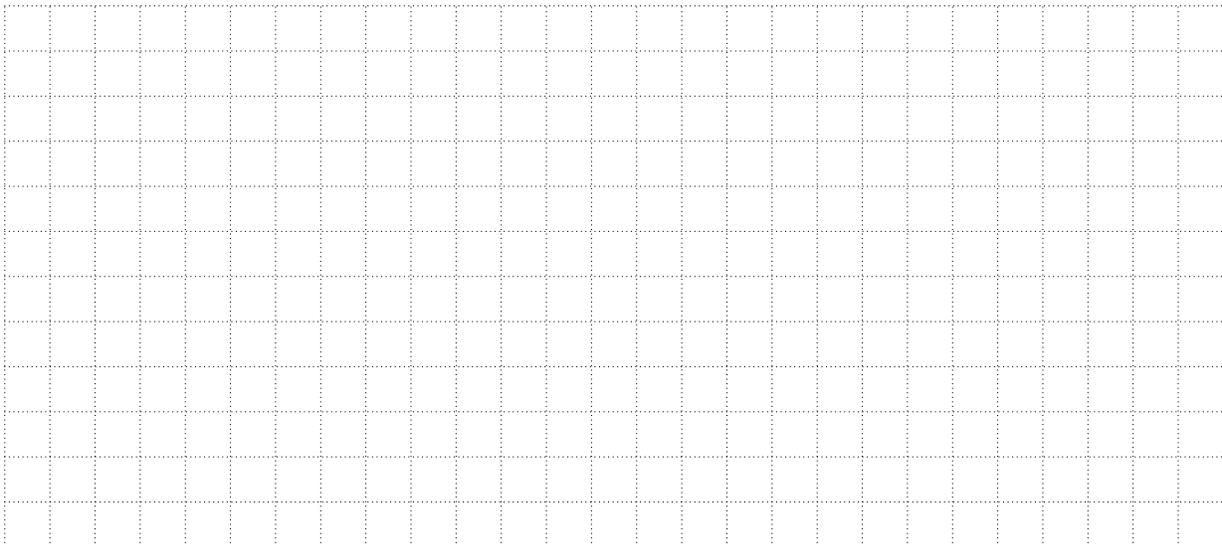
Exercise 2. Find the amplitude, period, and phase shift. Graph the function over one full period. Label all maxima, minima, and x-intercepts.

(a) $f(x) = 4\sin(2x - \pi)$

      amplitude $=$
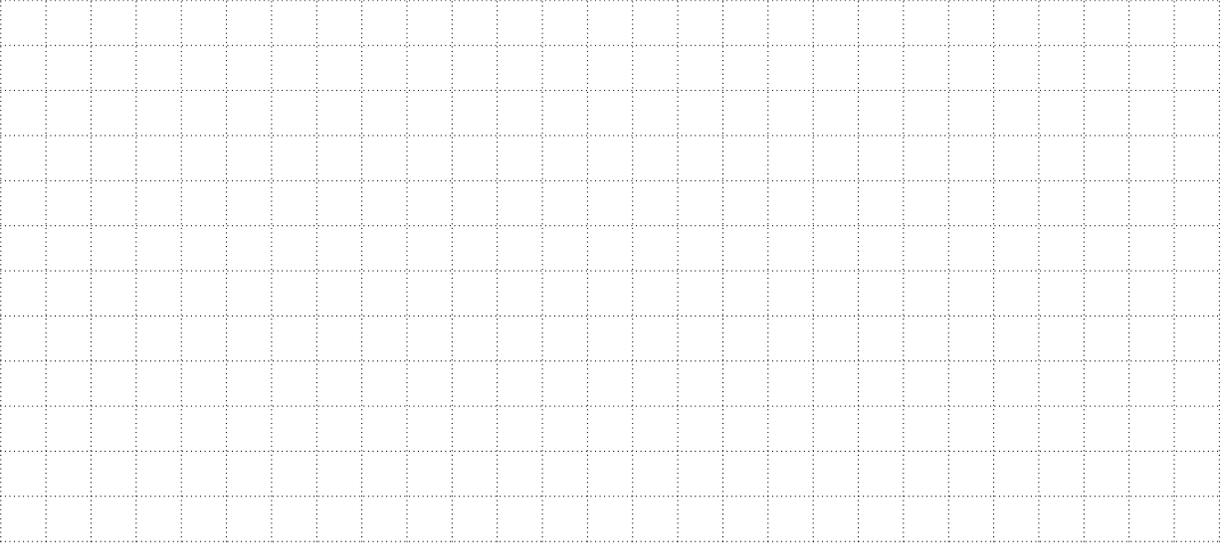
      period$=$

      phase shift$=$

(b) $\qquad f(x) = 5\cos(4x + 3\pi)$

amplitude $=$

period$=$

phase shift$=$

(c) $\qquad f(x) = 7\sin(6x + \frac{\pi}{3})$

amplitude $=$

period$=$

phase shift$=$