SHIFTS

TEXT: 5.3

LAST NAME	FIRST NAME	DATE

1 (8 points). Let

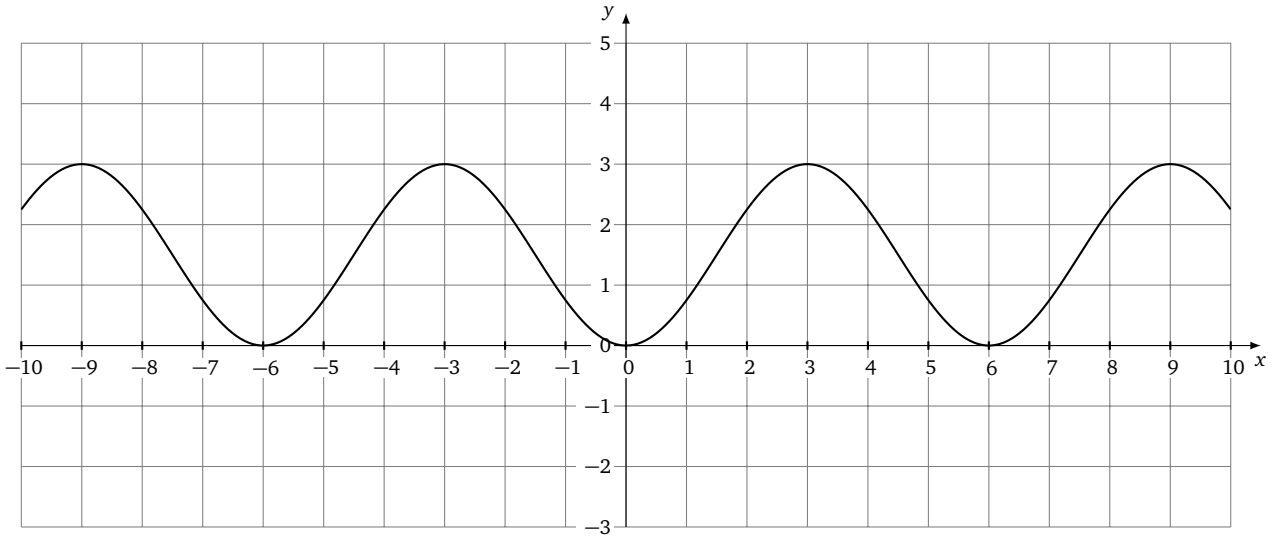
$$f(x) = -\frac{1}{2}\cos(x - \pi/3) + 1$$

Find:

- amplitude:
- phase shift:
- period:
- midline:
- step size:
- reflection(s):

Graph one full period of the function, identify coordinates of 5 points within that period by placing them on the grid intersections.

2 (4 points)**.** Find an expression for the shown function.



- amplitude:
- phase shift:
- period:
- midline:
- step size:
- reflection(s):

Expression:

3 (6 points)**.** Let

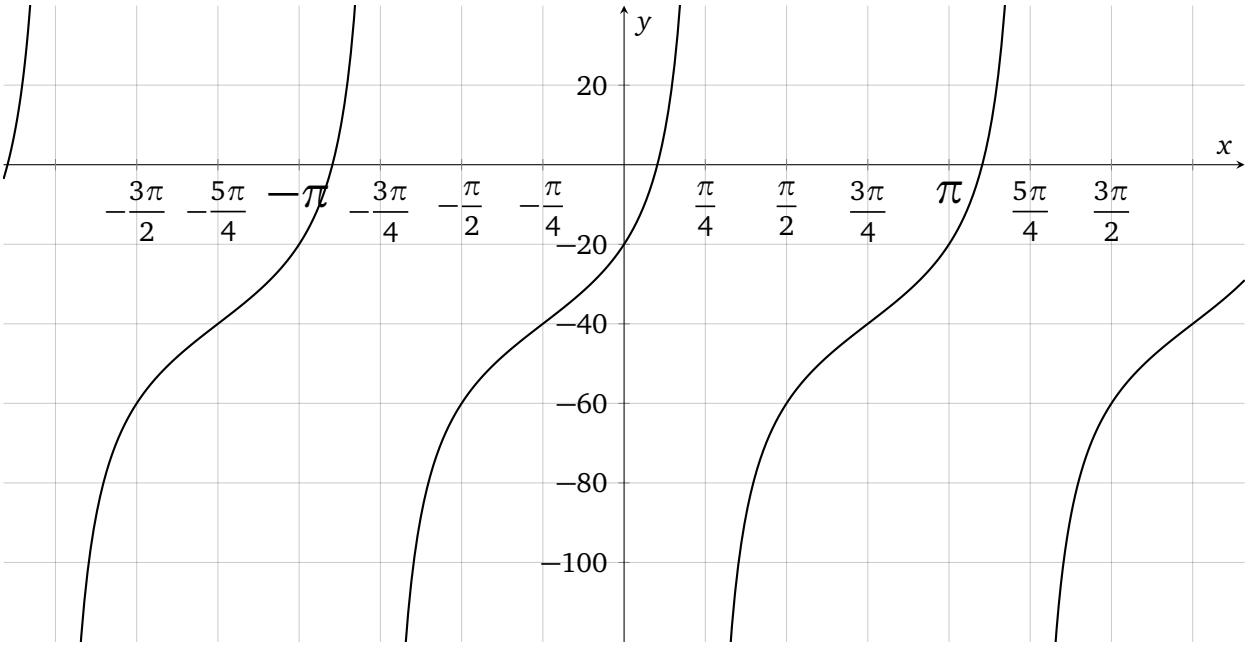
$$f(x) = 10\sin(\pi x + \pi/8) - 4$$

Find:

- amplitude:
- phase shift:
- period:
- midline:
- step size:
- reflection(s):

Graph one full period of the function, identify coordinates of 5 points within that period by placing them on the grid intersections.

4 (4 points)**.** Find an expression for the shown function.



- vertical stretch:
- phase shift:
- period:
- midline:
- step size:
- reflection(s):

Expression: