

For each of the following functions,

a) Find $f(x)$ for the given value of x

b) Find the first three positive values of x for the given value of $f(x)$

1. $f(x) = 2 + 5 \cos \frac{\pi}{10}(x-3)$

a. Find $f(7.8)$

b. $f(x) = 6$

7. $f(x) = 5 + 2 \cos \frac{\pi}{4}(x-10)$

a. Find $f(17.3)$

b. $f(x) = 6.7$

2. $f(x) = 4 + 3 \cos \frac{\pi}{6}(x-2)$

a. Find $f(10.2)$

b. $f(x) = 6$

8. $f(x) = 1 + 6 \cos \frac{\pi}{13}(x-20)$

a. Find $f(3.4)$

b. $f(x) = -4.9$

3. $f(x) = -2 + 4 \cos \frac{\pi}{2}(x-0.3)$

a. Find $f(3)$

b. $f(x) = 1$

9. $f(x) = 3 + 5 \sin \frac{\pi}{9}(x-11)$

a. Find $f(8)$

b. $f(x) = 2$

4. $f(x) = -1 + 3 \cos \frac{\pi}{3}(x-0.7)$

a. Find $f(5)$

b. $f(x) = 1$

10. $f(x) = 5 + 4 \sin \frac{\pi}{12}(x+10)$

a. Find $f(1)$

b. $f(x) = 2$

5. $f(x) = 1 + 3 \cos \frac{\pi}{8}(x+7)$

a. Find $f(14)$

b. $f(x) = 1.5$

11. $f(x) = 2 + 0.5 \tan \frac{\pi}{8}(x-3)$

a. Find $f(2)$

b. $f(x) = 7$

6. $f(x) = -2 + 5 \cos \frac{\pi}{11}(x+13)$

a. Find $f(8)$

b. $f(x) = -4$

12. $f(x) = 3 + 2 \sec \frac{\pi}{10}(x-1)$

a. Find $f(4)$

b. $f(x) = 8$

Answers

- . a) 2.31
b) 0.95, 5.05, 20.95
2. a) 2.78
b) 0.39, 3.61, 12.39
3. a) -3.82
b) 0.76, 3.84, 4.76
4. a) -1.62
b) 1.50, 5.90, 7.50
5. a) -0.15
b) 5.43, 12.57, 21.43
6. a) 2.80
b) 2.06, 15.94, 24.062.
7. a) 6.71
b) 1.29, 2.71, 9.29
8. a) -2.87
b) 6.24, 7.76, 32.242.
9. a) -1.33
b) 2.58, 10.42, 20.58
10. a) 6.04
b) 5.24, 10.76, 29.242.
11. a) 1.793
b) 6.746, 14.746, 22.746
12. a) 6.4026
b) 4.69, 17.30, 24.69