

HW 8 Lesson 35-1

Pg. 547 #1-3, 6-11, 13

1. (a) $y = 47 \cos\left(\frac{\pi}{40} t\right) + 55$

(b) plug in $t = 0$

(c) plug in $t = 4$

2. (C) $h(t) = 13 \sin(4\pi t) + 13$

3. $f(x) = 3 - 5 \cos\left(\frac{\pi}{6} x\right) + 3.7$

(a) .2 ft at low tide

(b) $p = 12$ hrs.

There are 12 hrs
between each high tide.

(c) 3.4 hours after high tide

6. $y = 42 \sin\left(\frac{\pi}{10}(x-h)\right) + 55$

$p = 20$ ALWAYS

7. Max = 55 Never

8. Min at $x = 0$ sometimes

9. Mid: $y = 55$ ALWAYS

10. $A = 84$ NEVER

11. $f(t) = 40 \sin\left(\frac{\pi}{45} t\right) + 48$

(A) $g(t) = 40 \cos\left(\frac{\pi}{45} t\right) + 50$

has same diameter.

13. (B) $h(t) = 1.5 \sin(\pi t) + 3.5$