

Math 120 winter 2001 Quiz 5

Problem 1: You have been monitoring tides at Half Moon Bay, California. You collected some data showing high tides at 2 am and 6 am, low tides at 4 am and 8 am . The water level at low tide is 5.4 feet, and at high tide is 11 feet. Find a formula for a sinusoidal function $f(t)$ that gives the water level at Half Moon Bay at time t of the day (where $t = 0$ corresponds to midnight and $t = 24$ corresponds to midnight of the following day) .