

SM3H 2.3 odd answers

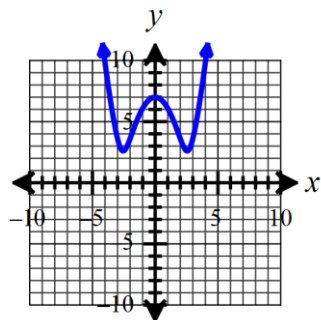
1a. $d(x) = \sqrt{x^4 - 13x^2 + 49}$ or

$$d(x) = \sqrt{x^2 + (x^2 - 7)^2}$$

1b. $d = 7$

1c. $d = \sqrt{37} \approx 6.08$

1d.



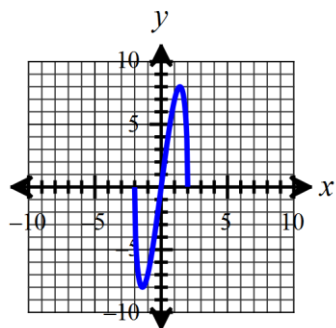
1e. 2.6

3. $A(x) = \frac{1}{2}x^4$

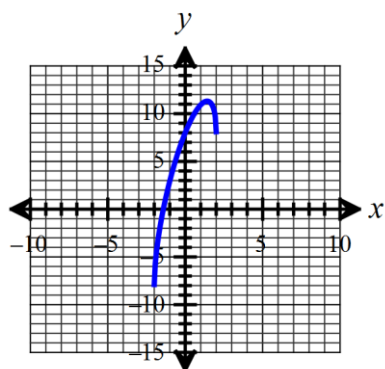
5a. $A(x) = 4x\sqrt{4 - x^2}$

5b. $P(x) = 4\sqrt{4 - x^2} + 4x$

5c. 1.41



5d. 1.41



7. $x = (21.5, 31)$

9. less than 4.2 hours