

Precalculus – 1.6 HW Answers

1. $d(x) = \sqrt{x^2 - x + 1}$; distance is smallest when $x = 0.5$

3. $A(x) = 16x - x^3$; Domain: $(0, 4)$; area is largest when $x \approx 2.31$

5. $A(x) = x^2 + \frac{(5-2x)^2}{\pi}$; Domain: $(0, 2.5)$ meters; area is smallest when $x \approx 1.4$ meters

7. $T(x) = \frac{\sqrt{x^2 + 4}}{3} + \frac{12-x}{5}$; Domain: $[0, 12]$ miles; land 1.5 miles from P , min. time 2.93 hrs.