Even Answers 2.4

2) (a) 1

(b) $\frac{7-\sqrt{41}}{2} \approx 0.298$

4) (a) $\frac{\ln 4}{3} \approx 0.462$

(b) $\frac{1}{3}\ln(1.03) \approx 0.0099$

6) (a) $-\frac{2}{\pi} \approx -0.637$

(b) 0

8) $Q_1 = (5, 20)$ $Q_2 = (7, 38)$

$Q_3 = (8.5, 56)$ $Q_4 = (9.5, 72)$

$P = (10, 80)$

Approximate Points

(a) PQ_1 slope = 12

PQ_2 slope = 14

PQ_3 slope = 16

PQ_4 slope = 16

Units are meters/second

(b) Approximately 16 m/sec

10) (a) -2

(b) $y = -2x - 1$ or $y = -2(x-1) - 3$

(c) $y = \frac{1}{2}x - \frac{7}{2}$ or $y = \frac{1}{2}(x-1) - 3$

d) Graph on calculator

16) slope $= -1$

24) 60 ft/sec

26) Volume is changing at a rate of 16π in^3/in

↑ Volume ↑ radius

28) 45.76 m/sec

30) $(-2, 7)$