

**Answers to Problems from section 4.8:**

6.  $x_2 = -1.2$ ;  $x_3 \approx -1.1529$ .

9.  $x_1 = 3$ ;  $x_2 \approx 3.111111$ ;  $x_3 \approx 3.10723734$ ;  $x_4 \approx 3.10723251 \approx x_5$ . So  $\sqrt[3]{30} \approx 3.10723251$ , to eight decimal places.

11.  $f(x) = \sin x - x^2$ ,  $x_1 = 1$ ,  $x_2 \approx 0.891396$ ,  $x_3 \approx 0.876985$ ,  $x_4 \approx 0.876726 \approx x_5$ . So the positive root is 0.876726, to six decimal places.

**Answers to Problems from section 4.9:**

7.  $\frac{1}{3}u^3 - \frac{6}{\sqrt{u}} + C$

9.  $\sin \theta + 5 \cos \theta + C$

10.  $F(x) = 3e^x + 7 \tan x + C_n$  on the interval  $(n\pi - \frac{\pi}{2}, n\pi + \frac{\pi}{2})$ .

14.  $F(x) = 4x - 3 \arctan x + \frac{3\pi}{4} - 4$ .

23.  $f(x) = 2x^4 + \frac{1}{3}x^3 + 5x^2 - 22x + \frac{59}{3}$ .

25.  $f(\theta) = -\sin \theta - \cos \theta + 5\theta + 4$ .

34. Omitted here. Follow example from the book.

45. \$ 742.08

47. 225 ft.

**Answers to Problems from section 5.1:**

4. (a)  $R_5 = 70$ , underestimate. (b)  $L_5 = 95$ , overestimate.

17.  $A = \lim_{n \rightarrow \infty} \sum_{i=1}^n \sqrt[4]{1 + \frac{15i}{n}} \cdot \frac{15}{n}$ .