

Math 20C
Prof. Lebl
HW7 answers

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Section 14.8.

14.8.4. Critical points: $\left(\frac{4}{\sqrt{13}}, \frac{6}{\sqrt{13}}\right), \left(-\frac{4}{\sqrt{13}}, -\frac{6}{\sqrt{13}}\right)$. Maximum ≈ 7.21 .
Minimum ≈ -7.21

14.8.6. Critical points: $\left(\sqrt{6}, 2\sqrt{\frac{2}{3}}\right), \left(-\sqrt{6}, -2\sqrt{\frac{2}{3}}\right)$. Minimum 48, no maximum.

14.8.10. Minimum value: 0, maximum value: 8.

14.8.16. $f(100, 100, 100) = 100^3$ (alt. $f(25, 25, 25) = 25^3$)

14.8.30. $a = b = c = 3$.

Section 15.1.

15.1.6. (A) -9 , (B) -9.5

15.1.8. 36

15.1.12. (a) ≈ 1.81 ; (b) ≈ 3.475 ; (c) ≈ -0.34

15.1.18. 40

15.1.26. 0

15.1.36. 1

Section 15.2.

15.2.4. $\frac{1}{12}$

15.2.6. (B)

15.2.18. ≈ 5.33

15.2.24. $\frac{4}{3}$

15.2.36. ≈ 4.88

15.2.58. ≈ 2.95