

**ANSWERS to 142 Exam 3 (Spring 2002)**

1. no absolute max, absolute min of -13 at  $x=3$
2. 125 x 250
3. upper = 1.14 miles, lower = .72 miles
4.  $\frac{4}{7}t^{\frac{7}{2}} + 10t^{\frac{1}{2}} + C$
5.  $\frac{5}{4} \ln |\ln(x^4)| + C$
6.  $\frac{1}{9}(3x^2 + 6)^3 - 24$
7. 2695.048 meters
8.  $16w^2 - 14w$
9. 9.761
10.  $f(8)=55$
11. upper = 11.206
12.  $-\frac{1}{4} \ln |4e^{-x} + 2e^{2x}| + C$
13.  $\frac{1}{9}\sqrt{6x^3 - 72x} = 19 + C$
14. 9.798
15.  $46.7^\circ$
16. max of 20 at  $x=-3$ , min of -7 at  $x=0$
17. 28.729