Math 1297, Calculus II

Lecture Section 8

Test 1 Practice Problems answers

1. $-\ln(5)$
2. (a) $e^{x\ln(2)}\ln(2)$
   (b) $\frac{1}{1+(\ln(x^2))^2}\frac{2}{x}$
   (c) $(\sin(x))^x(x\cot(x)+\ln(\sin(x))$
3. $-\vec{a}-\vec{b}$
4. (a) $4\sqrt{2}$
   (b) $\vec{r}(t) =< 1,-3,5 > +t < 0,-4,4 >$
5. A and C
6. (reflect across the $y=x$ line)
7. A
8. $< x-1, y-0, z+3 > \cdot < 1,2,5 >= 0$
9. $< 3,1,3 >$ or any multiple of this vector
10. a) F b) F c) F d) T e) T f) F (it is $3\vec{k}$)
11. $2e^{\sqrt{x}}+C$
12. See notes/book.
13. See notes/book.
14. See notes/book.