

ANSWERS to the Midterm I for Math 141, Spring 2004

1.a

2.c

3.d

4.c

5.b

6.b

7.c

8.d

9.a

10.a

11. a) 0      b)  $\pi^x \cdot \ln \pi$       c)  $2xe^{x^2+3}$       d)  $-\frac{\pi}{2}$       e) 225

12.  $\frac{9}{2} \arcsin \frac{x}{3} - \frac{x\sqrt{9-x^2}}{2} + C$

13.  $\ln|x| + \ln(x^2 + 1) - 3 \arctan x + C$

14.  $x \ln(1 + x^2) - 2x + 2 \arctan x + C$