

NAME: \_\_\_\_\_ ID: \_\_\_\_\_ Section: \_\_\_\_\_

**Exercise 1** (5 points)

Using three rectangles and left endpoints the area under the curve  $y = \ln x$  from 1 to 3 is approximately equal:

a/ $\frac{2}{3} \ln\left(\frac{35}{3}\right)$	
b/ $\frac{2}{3} \ln\left(\frac{35}{9}\right)$	
c/ $\frac{1}{3} \ln\left(\frac{35}{3}\right)$	
d/ $\frac{2}{3} \ln\left(\frac{5}{3}\right)$	
e/ $\frac{2}{3} \ln\left(\frac{7}{3}\right)$	

**Exercise 2** (5 points)

If  $F(x) = \int_2^{x^3} (\ln t) dt$ , then  $F''(1)$  is:

a/ 0	
b/ 9	
c/ 18	
d/ 27	
e/ 3	

NAME: \_\_\_\_\_ ID: \_\_\_\_\_ Section: \_\_\_\_\_

**Exercise 1** (5 points)

Using three rectangles and right endpoints the area under the curve  $y = \ln x$  from 1 to 3 is approximately equal:

a/ $\frac{1}{3} \ln\left(\frac{35}{3}\right)$	
b/ $\frac{2}{3} \ln\left(\frac{35}{9}\right)$	
c/ $\frac{2}{3} \ln\left(\frac{35}{3}\right)$	
d/ $\frac{2}{3} \ln\left(\frac{5}{3}\right)$	
e/ $\frac{2}{3} \ln\left(\frac{7}{3}\right)$	

**Exercise 2** (5 points)

If  $F(x) = \int_1^{e^{2x}} \frac{dt}{t}$ , then  $F''(1)$  is:

a/ e	
b/ 2	
c/ 0	
d/ 1	
e/ $\frac{1}{e}$	

