

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class/Period: \_\_\_\_\_

### Logarithms Quiz

- Evaluate the expression  $\log_2 \left(\frac{1}{4}\right)$ 
  - $\frac{1}{2}$
  - 2
  - $-\frac{1}{2}$
  - 2**
- Solve  $\log_3 x = 4$ 
  - $\sqrt[3]{4}$
  - 81**
  - 64
  - $\frac{3}{4}$
- Use a calculator to evaluate  $\log 0.125$ 
  - 0.903**
  - 1.25
  - 0.903
  - 1.25
- Solve  $x^{2/3} = 18$ 
  - 12
  - 1.255
  - 76.37**
  - 6.86
- Solve  $\log_5 75 = x$ 
  - 2.682**
  - 0.373
  - 375
  - 15
- Find  $\ln 700$  rounded to four decimal places
  - 6.5511
  - 6.5511**
  - 6.5512
  - 6.5510
- Solve  $e^{3x} = 10$  for  $x$  to four decimal places
  - 0.3333
  - 0.7675**
  - 1.2040
  - 0.5229
- Evaluate the expression  $\log_3 \left(\frac{1}{27}\right)$ 
  - 3
  - $\frac{1}{3}$
  - 3**
  - $-\frac{1}{3}$
- Solve  $\log_2 x = 5$  for  $x$ .
  - 10
  - $\sqrt{5}$
  - 25
  - 32**
- Solve  $10^{6x-5} = 1/1,000$ 
  - 1/3**
  - $\frac{3}{5}$
  - $\frac{4}{3}$
  - $\frac{5}{3}$
- Solve  $\log_2 (x + 3) - \log_2 5 = \log_2 13$ 
  - 126
  - 123
  - 65
  - 62**
- Solve  $6^{3x} = 25$  to four decimal places
  - 0.9333
  - 0.1855
  - 0.5988**
  - 1.3888
- Solve  $\ln e = \ln x$  for  $x$ 
  - 1
  - e**
  - 0
  - undefined