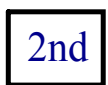


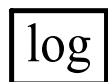
# **Algebra II**

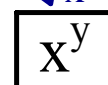
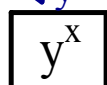

10-6

Logarithms on a  
Calculator


 ← Press to use the colored functions above the buttons.



$10^x$  ← Inverse log function (sometimes called "antilog")

 ← Logarithm button (base 10 only)

$\sqrt[y]{x}$   $\sqrt[x]{y}$   
   ← Exponent buttons

$\sqrt[x]{\quad}$  ← variable root function (cube root, etc.)

 ← Radical button

  ← Scientific Notation button

Use a calculator to find the value of each expression to three significant digits.

$$*1) (1.53)^{10} = 1.53 \boxed{y^x} 10 = 70.3$$

$$*2) \sqrt[3]{658^2} = 658 \boxed{x^2} \quad 3 \boxed{x\sqrt{\quad}} \text{ANS}$$
$$75.7$$

$$*3) \log_{10} 522 = 522 \boxed{\log} = 2.72$$

*log button is base 10 only.*

$$*4) \log_{10} x = 0.7143$$

$$10^{0.7143} = x \quad 5.18$$

Solve.

$$*5) 3^x = 13$$

$$\log_{10} 3^x = \log_{10} 13$$

$$x \log_{10} 3 = \log_{10} 13$$

$$x = \frac{\log_{10} 13}{\log_{10} 3}$$

$$\{2.33\}$$

$$*6) x^{\frac{4}{5}} = 97$$

$$(x^{\frac{4}{5}})^{\frac{5}{4}} = 97^{\frac{5}{4}}$$

$$x = \{304\}$$

Evaluate each logarithm. Round answers to three significant digits.

\*7)  $\log_4 30 = x$

$$4^x = 30$$

$$\log_{10} 4^x = \log_{10} 30$$

$$x \log_{10} 4 = \log_{10} 30$$

$$\frac{x \log_{10} 4}{\log_{10} 4} = \frac{\log_{10} 30}{\log_{10} 4}$$

$$x = \{2.45\}$$

pg 481  
1-38all