

# Exponential & Logarithmic Functions

## 6A – Exponential & Logarithmic Equations

Solve each equation or inequality by using logarithms. Round solutions to the nearest hundredth.

#1)  $8^x = 10$

#3)  $2.4^x \leq 20$

#2)  $12^x = 18$

#4)  $1.8^{x-5} = 19.8$

# Exponential & Logarithmic Functions

## 6A – Exponential & Logarithmic Equations

#5)  $4^{2x+1} = 15.2$

#7)  $x < \log_2 15$

#6)  $3^{5x} = 85$

#8)  $x > \log_3 12.3$

# Exponential & Logarithmic Functions

## 6A – Exponential & Logarithmic Equations

#9)  $x^{\frac{2}{3}} \geq 25.3$

#11)  $3^{2x-2} = 2^x$

#10)  $x^{0.4} = 18.9$

#12)  $4^{1-2x} = 3^{2x}$

# Exponential & Logarithmic Functions

## 6A – Exponential & Logarithmic Equations

#1)  $x = 1.11$

#2)  $x = 1.16$

#3)  $(-\infty, 3.42]$

#4)  $x = 10.08$

#5)  $x = 0.48$

#6)  $x = 0.81$

#7)  $(-\infty, 3.91)$

#8)  $(2.28, \infty)$

#9)  $[127.26, \infty)$

#10)  $x = 1552.94$

#11)  $x = 1.46$

#12)  $x = 0.28$