

## 12.9 Homework

- 1) You deposit \$975 in an account that pays 5.5% annual interest compounded continuously. What is the balance after 6 years?
  
  
  
  
  
  
  
  
  
  
- 2) You deposit \$2,000 in an account that pays 3.5% annual interest compounded semi-annually. What is the balance after 4 years?

### Describe the transformations from the parent graph

- 3)  $\log_7 (x + 1) + 2$
- 4)  $\log_2 -x$
  
  
  
  
  
  
  
  
  
  
- 5)  $-\log_3 (x + 9)$

### Rewrite each equation in exponential form.

- 6)  $\log_6 36 = 2$
- 7)  $\log_7 \frac{1}{49} = -2$
  
  
  
  
  
  
  
  
  
  
- 8)  $\log_{64} 4 = \frac{1}{3}$

### Rewrite each equation in logarithmic form.

- 9)  $9^2 = 81$
- 10)  $169^{\frac{1}{2}} = 13$
  
  
  
  
  
  
  
  
  
  
- 11)  $14^{-2} = \frac{1}{196}$

**Evaluate each expression.**

12)  $\log_7 49$

13)  $\log_3 27$

14)  $\log_2 32$

15)  $\log_6 6$

16)  $\log_5 1$

17)  $\log_7 \frac{1}{49}$