HW #72: SHOW ALL WORK on a separate piece of paper. All graphs must be on graph paper. Answer Section

1. \$1872.98

2. \$1819.40

3. \$452.89

4. $f(x) = 390(0.89)^x$; 218

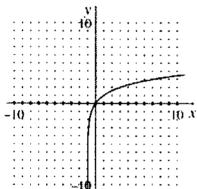
5. \$8514.41

6. $243^{6.5} = 729$

7. 4

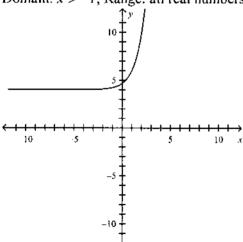
8. -2

9. -4



10.

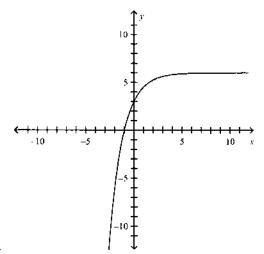
Domain: x > -1; Range: all real numbers



11.

D: All real numbers

R: y > 4



12,

D: All real numbers

R:
$$y < 6$$

- 13. False
- 14. True

15.
$$\log_5 \frac{4y^4}{x^3}$$

16.
$$\ln 2 + \ln x - 4 \ln y$$

17.
$$\log_3 \frac{2\sqrt{y}}{x^2}$$

18.
$$\frac{16}{21}$$

19.
$$\frac{3}{2}$$

21.
$$x = -6.425$$

22.
$$x = 6$$

25.
$$x = 24$$
 or 28

26.
$$\frac{16}{3}$$