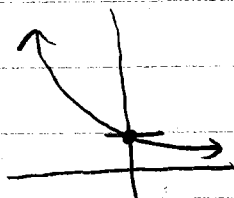
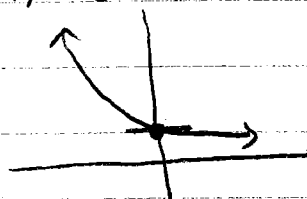


5.1 pg. 388 17, 19, 23-27 odd, 39, 41, 51-59 odd, 63, 67, 69

17.  $f(x) = \frac{1}{2}^x$



19.  $f(x) = 6^{-x}$

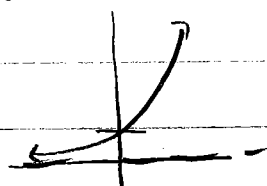


23. up 1 (increasing)

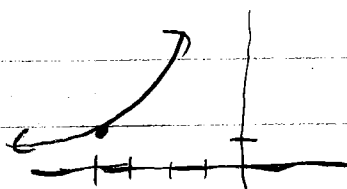
25. up 3 reflection in x-axis (increasing)

27. reflection in x-axis and y-axis (increasing)

39.  $f(x) = e^x$



41.  $f(x) = 3e^{x+4}$



51.  $3^{x+1} = 27$

$$3^{x+1} = 3^3$$

$$x+1 = 3$$

$$\boxed{x = 2}$$

53.  $\frac{1}{2}^x = 32$

$$2^{-x} = 2^5$$

$$-x = 5$$

$$\boxed{x = -5}$$

55.  $e^{3x+2} = e^3$

$$3x+2 = 3$$

$$3x = 1$$

$$\boxed{x = \frac{1}{3}}$$

57.  $e^{x^2-3} = e^{2x}$

$$x^2-3 = 2x$$

$$x^2-2x-3 = 0$$

$$(x-3)(x+1) = 0$$

$$\boxed{x = 3}$$

$$\boxed{x = -1}$$

59.  $A = 1500 \left(1 + \frac{.02}{n}\right)^{10n}$

n	1	2	4	12	365
A	1828.49	1830.29	1831.19	1831.80	1832.09

Continuous:  $A = 1500e^{.02(10)}$   
 $= \boxed{1832.10}$

63.  $A = 12000e^{.04t}$

t	10	20	30
A	17,901.90	26,706.49	39,841.40

t	40	50
A	59,436.39	88,668.67

67.  $A = 300000e^{.05 \cdot 25}$

$= \boxed{104,710.29}$

69.  $C(t) = P(1.04)^t$

$C(10) = \frac{23.95}{1.04^{10}}$   
 $= \boxed{35.45}$