

HW 46

p225 #1-3, 6, 15-21, 23, 24, 81-83

1. translation

23. over x, U1

2. $-y$, $f(-x)$

$$y = -\sqrt{x} + 1$$

3. dilation

24. L2

6. iv

$$y = |x+2|$$

15. a) D1
 $x^2 - 1$ 81. false $y = -f(x)$
change y's

b) over x, U1, L1

82. false change x's

$$y = -(x+1)^2 + 1$$

83. true b/c $|-x| = |x|$

c) over x, U6, VD2

$$y = -2x^2 + 6$$

d) D3, R5

$$y = (x-5)^2 - 3$$

then

19. ~~R2~~ $y = (x-2)^3$

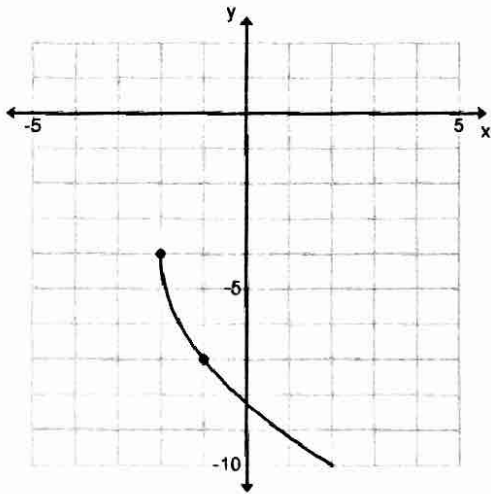
20. $y = \frac{1}{2}x$

21. over x-axis, $y = -x^2$

HW 46

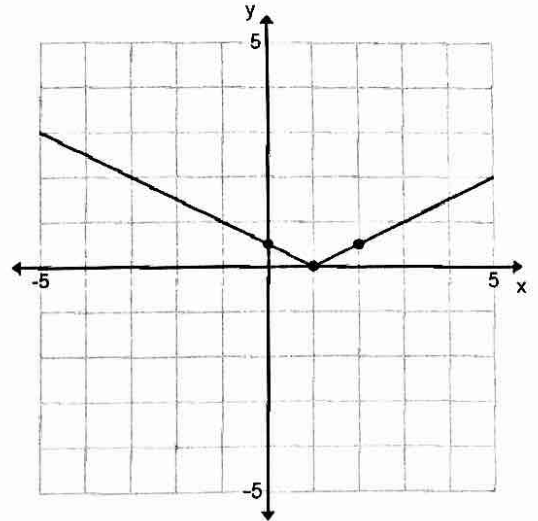
Graph to Equation HW Worksheet AAT

1.



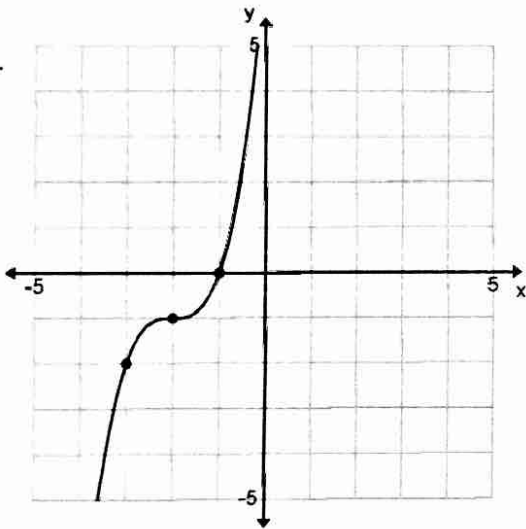
$$y = -3\sqrt{x+2} - 4$$

2.



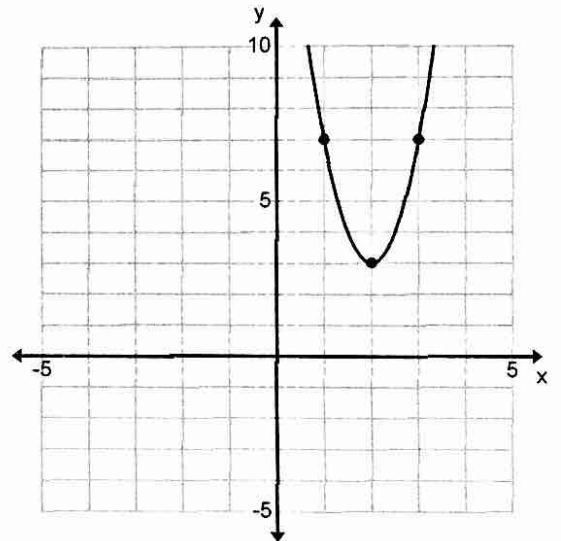
$$y = \frac{1}{2}|x-1|$$

3.



$$y = (x+2)^3 - 1$$

4.



$$y = 4(x-2)^2 + 3$$

HW47

P225 #55-61, 63-69, 77a-d

55. $f(x) = (x-3)^2 - 7$

56. $f(x) = -(x+2)^2 + 9$

57. $f(x) = (x-13)^3$

58. $f(x) = -(x+6)^3 - 6$

59. $f(x) = -|x| + 12$

60. $f(x) = |x+4| - 8$

61. $f(x) = -\sqrt{-(x+6)}$

63. a) $y = -ax^2$

$-3 = -a(1)^2$

$3 = a$

$y = -3x^2$

b) 43

$y = ax^2 + 3$

$7 = a \cdot 1^2 + 3$

$4 = a$

$y = 4x^2 + 3$

64. a) $y = ax^3$
 $2 = a(2^3)$
 $2 = 8a$

$\frac{1}{4} = a$

$y = \frac{1}{4}x^3$

b) $y = a(-x)^3$
 $-2 = a(-1)^3$
 $-2 = -a$
 $2 = a$

$y = 2(-x)^3$

65. a) over x-axis

$y = -a|x|$

$-2 = -a|4|$

$-2 = -4a$

$\frac{1}{2} = a$

$y = -\frac{1}{2}|x|$

b) D3

$y = a|x| - 3$

$3 = a|-2| - 3$

$6 = 2a$

$3 = a$

$y = 3|x| - 3$

$$\text{UW. a) } |u| = a\sqrt{4}$$

$$|u| = 2a$$

$$8 = a$$

$$\boxed{y = 8\sqrt{x}}$$

b) over x-axis

$$y = -a\sqrt{x}$$

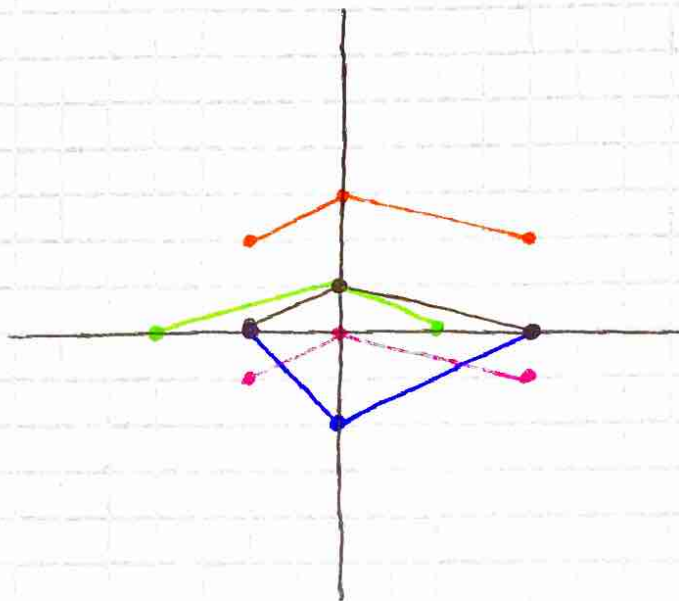
$$-1/2 = -a\sqrt{4}$$

$$-1/2 = -2a$$

$$\Rightarrow 1/4 = a$$

$$\boxed{y = -\frac{1}{4}\sqrt{x}}$$

HW47 #77



a) $f(x) + 2$

b) $f(x) - 1$

c) $f(-x)$ over y-axis

d) $-2f(x)$