

# HW 48

p 251 # 41, 50, 55-59, 61, 62, 77-80, 81-80ab

41. yes

50.  $0 = x^3 - x^2 - 25x + 25$

$$0 = x^2(x-1) - 25(x-1)$$

$$0 = (x^2 - 25)(x-1)$$

$$x^2 = 25$$

$$\boxed{x = \pm 5} \quad \boxed{x = 1}$$

55.

56.

57.  $\frac{f(4) - f(0)}{4 - 0}$

$$= \frac{12 - (-4)}{4 - 0}$$

$$= \boxed{4}$$

58.  $\frac{f(4) - f(0)}{4 - 0}$

$$= \frac{110 - (-2)}{4 - 0}$$

$$= \boxed{28}$$

59.  $\frac{f(7) - f(3)}{7 - 3}$

$$= \frac{-0.8 - 0}{4}$$

$$= \boxed{-0.2}$$

61.  $f(-x) = (-x)^5 + 4(-x) - 7$   
 $= -x^5 - 4x - 7$

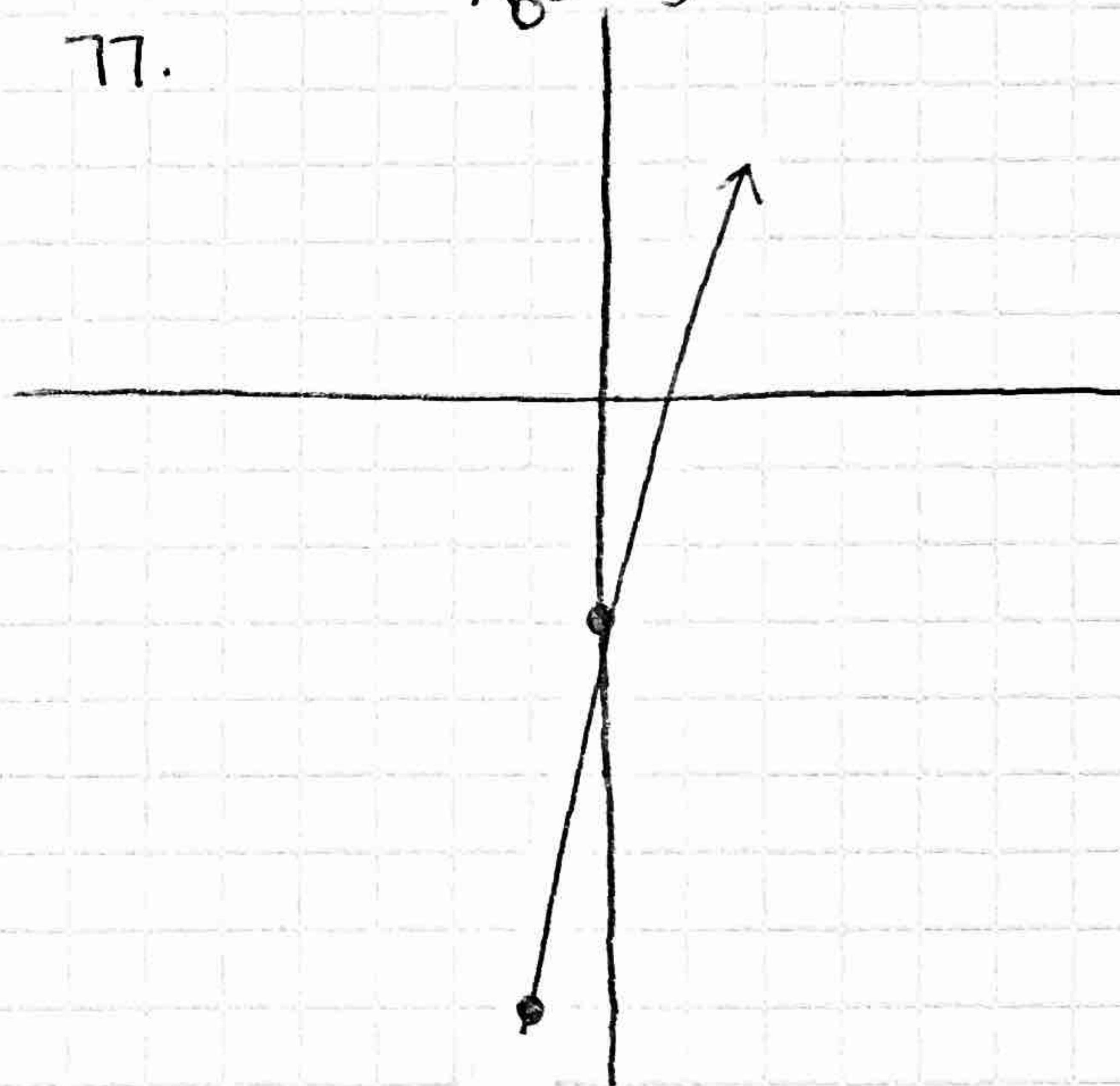
$\boxed{\text{neither}}$

62.  $f(-x) = (-x)^4 - 20(-x)^2$   
 $= x^4 - 20x^2$

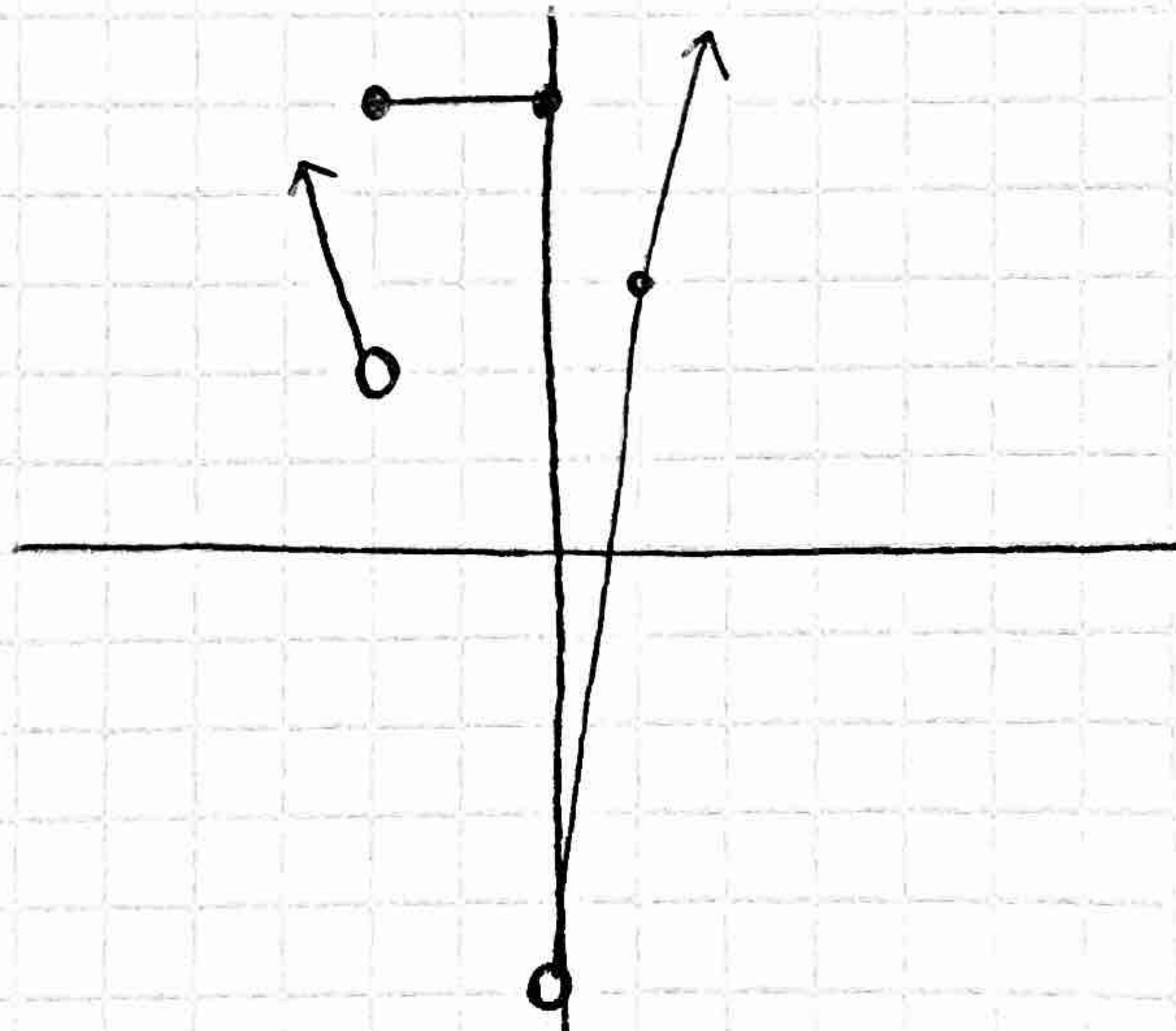
$\boxed{\text{even}}$

$\sqrt{0} \leftarrow y = 9$

77.



78.





79. L4, U4

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

80. U4

$$y = \sqrt{x} + 4$$

81. a)  $x^2$

b) D9

82. a)  $x^3$

b) R2, U2

83. a)  $\sqrt{x}$

b) over x-axis, U4

84. a)  $|x|$

b) L3, D5

85. a)  $x^2$

b) over x-axis, L2, U3

86. a)  $x^2$

b) VD'1/2, R1, D2