Chapter 1.2 –Graphs of Equations

Directions: Provide complete responses to each question. Make sure to show all your work.

1.   . Determine which of the following points lies on the graph of the equation.

   $$y = \sqrt{x + 62}$$

a. (2, 10)

b. (2, 9)

c. (2, 8)

d. (9, 8)

e. (3, 8)

2.   Determine which of the following points lies on the graph of the equation.

   $$y = |x - 2| + 4$$

a. (5, 7)

b. (5, 9)

c. (5, 8)

d. (8, 7)

e. (6, 7)

3. Which of the following graphs is symmetric about the y-axis?

a. $y = x^7 - x^6 + 18$

b. $y = x^7 - x^{12} + 18$
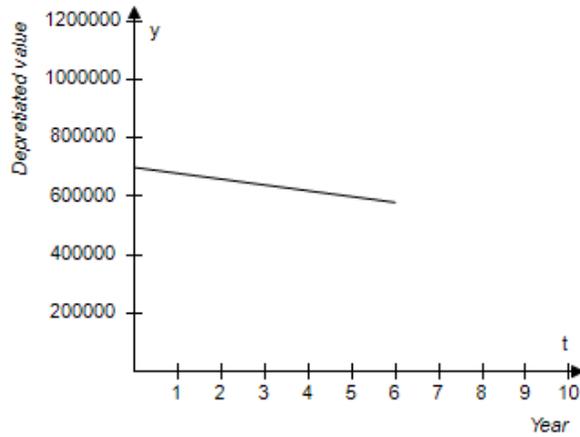
c. $y = x^9 - x^7 + 18$

d. $y = x^{12} - x^6 + 18$

e. $y = x^9 + x^7 + 18$

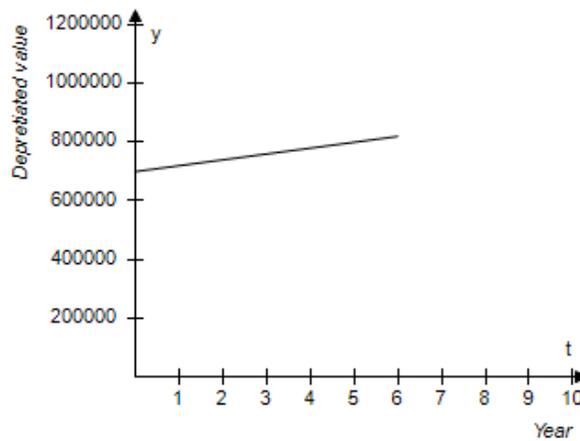4. A hospital purchases a new magnetic resonance imaging (MRI) machine for $600,000. The depreciated value y (reduced value) after t years is given by $y = 600{,}000 - 20{,}000t$, $0 \leq t \leq 6$. Sketch the graph of the equation.
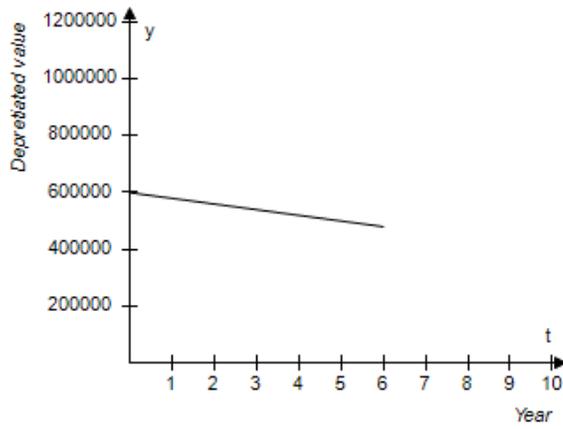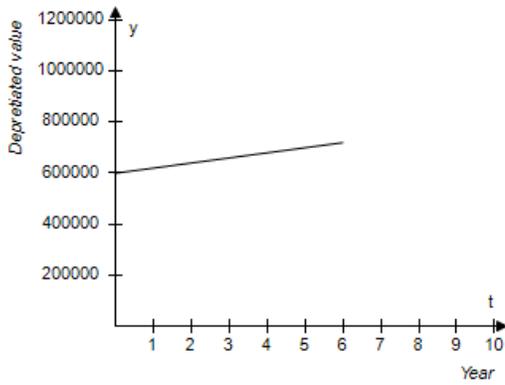
a.

b.
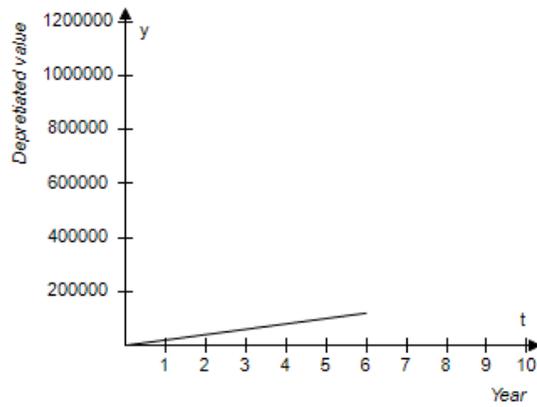
c.

d.

e.

5. Find the x-intercept of the graph of the equation $y = 3x + 15$.

a. (0, -5)

b. (0, 15)

c. (15, 0)

d. (0, 3)

e. (-5, 0)