Systems of Linear Equations and Inequalities

1. Solve the system of equations below.

   $-5y + 3x = -16$
   $10y + 4x = 62$

   What is the x-value in the solution?

   A. 3
   B. 4.6
   C. 5
   D. 6.6

2. Solve the system of equations below.

   $x = -3y$
   $3y + 2x = 3$

   What is the value of y in the solution?

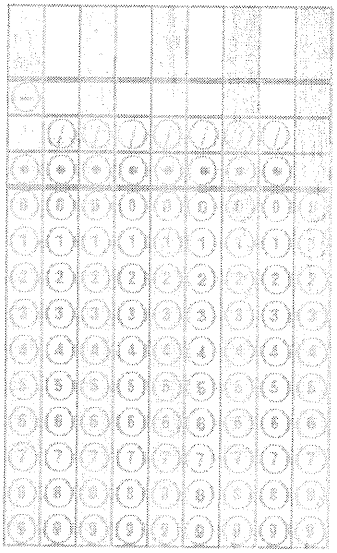
   A. -3
   B. -1
   C. 1
   D. 3

3. Kim bought 4 shirts and 3 pairs of jeans for $109.85.
   Jim bought 6 shirts and 1 pair of jeans for $94.95.

   Each shirt costs the same amount.
   Each pair of jeans costs the same amount.

   What is the cost, in dollars, for 1 pair of jeans?

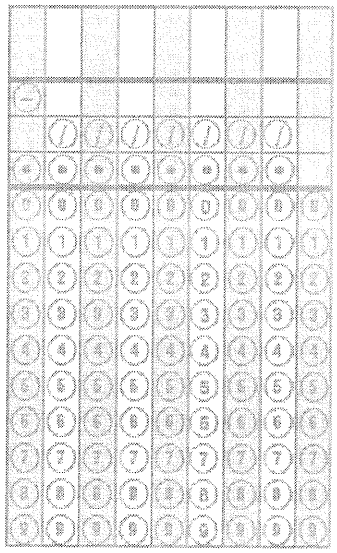
   Enter your answer in the response grid.



4. Jen is 13 years younger than Andre. The sum of their ages in years is 137.

   What is Andre's age in years?

   Enter your answer in the response grid.



5. Solve the system of equations below.

$$3x - 2y = -7$$
$$-4x + y = 11$$

Answer_____

6. A group of 2 adults and 4 children paid $95 for admission to a water park. A different group of 3 adults and 7 children paid $155 for admission to the same water park.

   Write a system of equations that can be used to determine the admission price to the water park for an adult (A) and a child (C).

   Answer_____

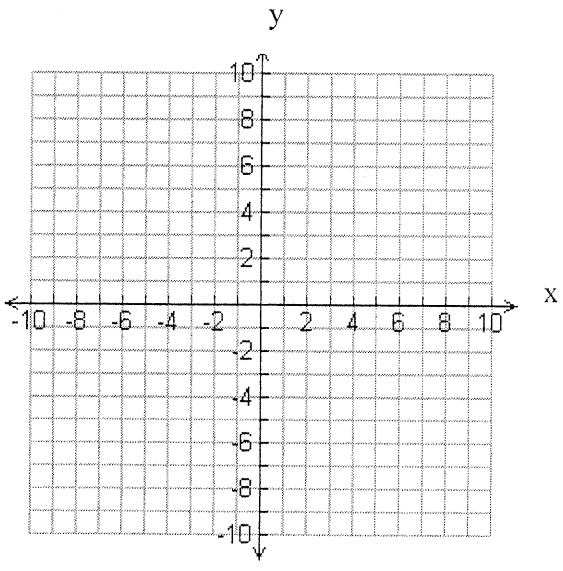
   _____

   What is the admission price, in dollars, for 1 child?

   Answer_____

7. Graph the system of linear inequalities below.

   $-3x + 2y > -6$
   $-y \geq 2x - 5$



8. Describe how to estimate the solution to a pair of equations graphed on a coordinate plane. Then, explain how to determine if there is one solution, no solution, or infinitely many solutions to the pair of equations.