Algebra I Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CFA Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_

**For Questions 1 – 4, use the following problem.**

You plan on going to an in-line skating rink for the day. You can buy in-line skate from your friend for $40, or you can rent some. Either way you must rent safety equipment. In-line skates and safety equipment cost $3.50 per hour if you rent through the rink. If you rent just safety equipment, it costs $1.50 per hour.

1. Write an equation to determine how much it will cost to buy skates from your friend and skate for h hours.
   1. c = 1.50h
   2. c = 1.50 + h
   3. c = 1.50h + 40
   4. c = 40h + 1.50
2. Write an equation to determine how much it will cost to rent skates and safety equipment through the rink after h hours.
   1. c = 3.50h
   2. c = 3.50 + h
   3. c = 3.50h + 1.50
   4. c = 3.50 – h
3. Write an equation to determine how many hours you must skate for the cost of renting and buying skates to be the same.
   1. 1.50h = 3.50h
   2. 1.50h + 40 = 3.50h
   3. C = 1.50h + 3.50h + 40
   4. 40 = 3.50h
4. Solve your equation from question 3.
   1. h = 20
   2. h = 2
   3. h = -20
   4. c = 5h
5. When given the equation 2*x* + 8 = 12, what is the first step you would complete to solve for x?
   1. Add 8 to both sides of the equal sign
   2. Subtract 8 from both sides of the equal sign
   3. Add 2x to both sides of the equal sign
   4. Subtract 2x from both sides of the equal sign
6. To simplify the following equation, you would…

3x + 4x = 35

* 1. Subtract 3x from both sides
  2. Subtract 4x from both sides
  3. Add 3x and 4x
  4. Subtract 3x and 4x