Name: _____ Date: _____

Algebra 1 - Unit 2 - Linear Equation Word Problems (Challenge)

Read each word problem carefully. Write an equation and solve for x. Show your work.

1. A school has x students. 21 students joined the school this year, and 29 students left. Now the school has 144 students. How many students were there originally?

   Equation: _____

   Solution: _____

2. A theater sold tickets for a show. Adult tickets cost $13 each and they sold x adult tickets. They also sold 13 child tickets at $6 each. They made $338 in total. How many adult tickets did they sell?

   Equation: _____

   Solution: _____

3. A school has x students. 10 students joined the school this year, and 20 students left. Now the school has 175 students. How many students were there originally?

   Equation: _____

   Solution: _____

4. A school has x students. 38 students joined the school this year, and 23 students left. Now the school has 98 students. How many students were there originally?

   Equation: _____

   Solution: _____

bra 1 - Unit 2 - Linear Equation Word Problems (Challenge) - Answer

1. A school has x students. 21 students joined the school this year, and 29 students left. Now the school has 144 students. How many students were there originally?

   Equation: x - 21 + 29 = 144

   Solution: x = 136

2. A theater sold tickets for a show. Adult tickets cost $13 each and they sold x adult tickets. They also sold 13 child tickets at $6 each. They made $338 in total. How many adult tickets did they sell?

   Equation: 13x + 13*6 = 338

   Solution: x = 20

3. A school has x students. 10 students joined the school this year, and 20 students left. Now the school has 175 students. How many students were there originally?

   Equation: x - 10 + 20 = 175

   Solution: x = 165

4. A school has x students. 38 students joined the school this year, and 23 students left. Now the school has 98 students. How many students were there originally?

   Equation: x - 38 + 23 = 98

   Solution: x = 113