Reverse Percentages - set samples - paper 1

Solve the reverse percentage problems below.

1. A theatre had some tickets for sale. It sold 30% of the original number in the morning, sold 50% of the original number in the afternoon, and had 48 tickets unsold. How many tickets were available originally?

   ans_____

2. Zina has a collection of toy cars. She donates 25% of the original number of toy cars, gives 35% of the original number to her cousin, and keeps the remaining 64 cars. How many toy cars did she have originally?

   ans_____

3. Bert has a collection of toy cars. He donates 30% of the original number of toy cars, gives 30% of the original number to his cousin, and keeps the remaining 48 cars. How many toy cars did he have originally?

   ans_____

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Reverse Percentages - set samples - Answers

1. Let x be the original total.
   Total percentage given away:
   30% + 50% = 80%
   Remaining percentage:
   100% - 80% = 20% (0.20x)
   Equation: 0.20x = 48
   Original amount: x = 48 / 0.20 = 240
   Answer: 240

2. Let x be the original total.
   Total percentage given away:
   25% + 35% = 60%
   Remaining percentage:
   100% - 60% = 40% (0.40x)
   Equation: 0.40x = 64
   Original amount: x = 64 / 0.40 = 160
   Answer: 160

3. Let x be the original total.
   Total percentage given away:
   30% + 30% = 60%
   Remaining percentage:
   100% - 60% = 40% (0.40x)
   Equation: 0.40x = 48
   Original amount: x = 48 / 0.40 = 120
   Answer: 120

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