Algebra I Worksheet #4 Unit 3 Selected Solutions

Solve each of the following problems algebraically. For each problem, you **must**

a. **represent** all unknowns in terms of the same variable,
b. write an **equation** for the problem,
c. **solve** your equation showing your steps neatly organized, and
d. **answer** the question using a complete sentence.

3. The sum of four consecutive odd whole numbers is 56. What are the whole numbers?

x
x + 2
x + 4
x + 6

$4x + 12 = 56$
$4x = 44$
x = 11

The numbers are 11, 13, 15, and 17.

5. Mary is thinking of a number. If she adds four to her number and then multiplies by six, she gets 192. What was Maryôs original number?

Maryôs number : x

$6(x + 4) = 192$
$6x + 24 = 192$
$6x = 168$
$x = 28$

Mary's number was 28.

8. Mark and Jane drive toward each other from places that are 230 miles apart. Mark averages 36 miles per hour and starts driving at 8:00 AM. Jane averages 43 miles per hour and starts driving at 10:00 AM. At what time will they meet?

	driving time (hours)	rate (mph)	distance (miles)
Mark	x + 2	36	36(x + 2)
Jane	x	43	43x
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		total distance :	230

$36(x + 2) + 43x = 230$
$36x + 72 + 43x = 230$
$79x + 72 = 230$
$79x = 158$
x = 2 hours

Jane left at 10:00 AM and drove for 2 hours.

They will meet at 12:00 noon.