Practice 5-6

Work Backward

Work backward to solve each problem.

1. Manuel's term paper is due on March 31. He began doing research on March 1. He intends to continue doing research for 3 times as long as he has done already. Then he will spend a week writing the paper and the remaining 3 days typing. What day is it? (Assume he will finish typing on March 30.)

   _____

2. A disc jockey must allow time for 24 minutes of commercials every hour, along with 4 minutes for news, 3 minutes for weather, and 2 minutes for public-service announcements. If each record lasts an average of 3 minutes, how many records per hour can the DJ play?

   _____

3. Margaret is reading the 713-page novel *War and Peace*. When she has read twice as many pages as she has read already, she will be 119 pages from the end. What page is she on now?

   _____

4. On Monday the low temperature at the South Pole dropped 9°F from Sunday's low. On Tuesday it fell another 7°, then rose 13° on Wednesday and 17° more on Thursday. Friday it dropped 8° to −50°F. What was Sunday's low temperature?

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5. Each problem lists the operations performed on n to produce the given result. Find n.
   a. Multiply by 3, add 4, divide by 5, subtract 6; result, −1.

      $n =$ _____

   b. Add 2, divide by 3, subtract 4, multiply by 5; result, 35.

      $n =$ _____

   c. Multiply by 2, add 7, divide by 17; result, 1.

      $n =$ _____

   d. Divide by 3, add 9, multiply by 2, subtract 12; result, 4.

      $n =$ _____

   e. Subtract 2, divide by 5, add 7, multiply by 3; result, 30.

      $n =$ _____