Skating Party

DIRECTIONS: Use the clues to enter the correct digits. In the clues, "A" means *across* and "D" means *down*. For example, "1-D" would refer to clue number 1 DOWN. Each square takes a single digit from 0 through 9. No answer begins with 0.

Last evening, Richard, Stephen, and Tania, three teenagers of different ages, went to a roller-skating party held by the young people's club of their church. They weren't expert skaters, but they had fun even though they each fell at least once.

ACROSS

1. Times Stephen fell

2. Stephen's age

4. Age of James, Richard's father

6. Number of sisters Richard has

7. Product of 10-A and sum of 2-A and 3-D

9. Age of Slowpoke, Tania's pet turtle

10. Tania's Age

DOWN

1. 7-A x 4

2. Times Tania fell

3. 3 x 2-A

5. Richard's age

8. Age of Stephen's Great-aunt Martha

11. 3-D divided by 7

ANSWERS

Page 18: Skating Party

The solution steps are numbered below:

1. Since all three are teenagers, the first digits of their ages (2-A, 10-A, 5-D) must be 1.
2. Three times a 2-digit number (2-A) must equal another 2-digit number (3-D). Therefore, 2-A could be from 13 to 19, as shown below.

   2-A x 3 = 3-D:
   13 x 3 = 39
   14 x 3 = 42
   15 x 3 = 45
   16 x 3 = 48
   17 x 3 = 51
   18 x 3 = 54
   19 x 3 = 57

   However, the second digit of 2-A must be the same as the first digit of 3-D. That leaves 13 or 14 as possibilities for 2-A. (3-A would be 39 or 42.) However, 11-D implies that 3-D must be divisible by 7; of 39 and 42, only 42 meets this demand, so 2-A is 14, and 3-D is 42.
3. Divide 3-D by 7: 42 / 7 = 6 for 11-D.
4. Adding 2-A and 3-D gives 14 + 42 = 56. Multiplying 56 by 10-A gives 16 x 56 = 896 for 7-A.
5. Multiply 7-A by 4: 896 x 4 = 3584 for 1-D.

¹3		²1	³4
⁴5	⁵1		⁶2
⁷8	9	⁸6	
⁹4		¹⁰1	¹¹6