

Challenge

Problem Solving Strategy: Work Backward

Work backward to solve each problem.

1. Sarah got on the school bus. At the stop after Sarah's, 7 students got on. Five students got on the bus at the next stop. At the last stop before the school, 9 students got on. When the bus arrived at school, 38 students got off. How many students were already on the bus when Sarah got on?

2. Mrs. Allen baked some cookies for the school bake sale. Franco bought 3 of the cookies and Chandra bought 2. Mr. Walker bought 1 dozen of the cookies. William and Starr each bought 6 cookies. Then Ms. Porter bought 4 of the cookies. That left only 3 cookies for Scott to buy. How many cookies did Mrs. Allen bake for the sale?

3. Dave, Nora, Tony, and Andrea are members of the same family. Dave is 2 years older than Andrea, who is 21 years older than Tony. Tony is 4 years older than Nora, who is 7 years old. How old are Dave, Tony, and Andrea?

4. Paula went shopping at a department store. She bought 2 CDs on sale for \$8.95 each, a notebook for \$4.29, and a bottle of shampoo for \$2.58. When Paula paid for her purchases, the cashier gave her \$5.23 in change. How much money did Paula give the cashier?

5. Brian gave 10 stamps from his collection to both Sam and Rob. Then he gave 14 stamps to Kathy and 6 stamps to Grace. He still had 275 stamps. How many stamps were in Brian's collection to begin with?

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1. Sarah got on the school bus. At the stop after Sarah's, 7 students got on. Five students got on the bus at the next stop. At the last stop before the school, 9 students got on. When the bus arrived at school, 38 students got off. How many students were already on the bus when Sarah got on?

16 students

2. Mrs. Allen baked some cookies for the school bake sale. Franco bought 3 of the cookies and Chandra bought 2. Mr. Walker bought 1 dozen of the cookies. William and Starr each bought 6 cookies. Then Ms. Porter bought 4 of the cookies. That left only 3 cookies for Scott to buy. How many cookies did Mrs. Allen bake for the sale?

36 cookies

3. Dave, Nora, Tony, and Andrea are members of the same family. Dave is 2 years older than Andrea, who is 21 years older than Tony. Tony is 4 years older than Nora, who is 7 years old. How old are Dave, Tony, and Andrea?

Dave: 34, Andrea: 32, Tony: 11

4. Paula went shopping at a department store. She bought 2 CDs on sale for \$8.95 each, a notebook for \$4.29, and a bottle of shampoo for \$2.58. When Paula paid for her purchases, the cashier gave her \$5.23 in change. How much money did Paula give the cashier?

\$30.00

5. Brian gave 10 stamps from his collection to both Sam and Rob. Then he gave 14 stamps to Kathy and 6 stamps to Grace. He still had 275 stamps. How many stamps were in Brian's collection to begin with?

315 stamps
