

1-30

29 Process Problem

Chad collects baseball cards. Every day he gets 10 new cards. Every third day, he gives some to his brother, the same number each time. If he has 9 cards on the first day, on what day will Chad have exactly 100 cards? (Hint: Complete the table. Look for a pattern.)

Day	1	2	3	4	5	6	7	8	9	10	11	12
Number of Baseball Cards	9	19	26	36								

TEACHING ACTIONS

1. Read the problem.
2. Ask questions for understanding the problem.
3. Discuss possible solution strategies.

BEFORE

Understanding the Problem

- What is Chad collecting? (baseball cards)
- How often does he get new cards? (every day)
- What does he do every third day? (Gives some cards to his brother.)
- Does he always give his brother the same number of cards? (yes)

TEACHING ACTIONS

4. Observe students.
5. Give hints as needed for solving the problem.
6. Require students to check back and answer the problem.
7. Give problem extension as needed.

DURING

Planning a Solution

- If Chad had 9 cards on day 1, how many cards will he have on day 2? ($9 + 10 = 19$)
- If Chad collects 10 cards each day, why doesn't he have 29 cards on day 3? (He gave some to his brother.)
- How many cards does he give his brother? ($29 - 26 = 3$)
- On what day will he give his brother 3 more cards? (day 6)

TEACHING ACTIONS

8. Discuss solution(s).
9. Discuss related problems and extension.
10. Discuss special features as needed.

AFTER

Finding the Answer

Make a Table/Look for a Pattern

Day	1	2	3	4	5	6	7	8	9	10	11	12
Number of Baseball Cards	9	19	26	36	46	53	63	73	80	90	100	

Pattern: The number of cards increases by 10 each day but decreases by 3 every third day.
Chad has 100 cards on the eleventh day.

Problem Extension

If Chad had given his brother 4 cards every other day, beginning with day 2, how many cards would Chad have on the tenth day? (79)