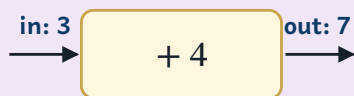


CONTINUE THE GAME SCORES

- 1 Look at the sequence 1, 3, 7, 15.
- 2 Check the rule: double then add 1 gives $1 \times 2 + 1 = 3$, $3 \times 2 + 1 = 7$, $7 \times 2 + 1 = 15$.
- 3 Apply the same rule to 15: $15 \times 2 + 1 = 31$.
- 4 Apply it once more: $31 \times 2 + 1 = 63$.
- 5 So the next two terms are 31 and 63.

WARM-UP

Fill the missing terms on the three game-score tracks printed below.



1. Write the next two terms on the track that starts 2, 5, 8, 11
2. Write the next two terms on the track that starts 1, 2, 4, 8
3. Write the next two terms on the track that starts 4, 9, 19, 39

PRACTICE

- 1 Sam's board-game scores go 14, 19, 24, 29. What are the next two scores if the pattern keeps going?
- 2 In a card game the points double each round: 9, 18, 36, 72. What two scores come next?
- 3 Lily hops 5, 10, 15, 20 spaces on the playground hopscotch. What are her next two hops?
- 4 A video-game level awards points 6, 13, 27, 55. Find the next two scores using the same hidden rule.
- 5 Tom's toy-car race markers read 2, 5, 11, 23. What are the next two markers if the pattern holds?
- 6 In a puzzle game the secret codes are 3, 7, 15, 31. Continue the pattern for two more terms.

? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- a. The sequence 2, 5, 8, 11 follows the rule add 3 each time
- b. The fifth term of 1, 2, 4, 8 is 16
- c. The sequence 3, 6, 12, 24, ... stays under 100.
- d. A number pattern adds the same amount each time.