

3.OA.D.9 Finding the Pattern

3.OA.D.9: Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

Write the next number in the number sequence and then find a rule for each sequence.

1. **5, 8, 11, 14, 17,** _____ Rule: _____

2. **24, 34, 44, 54, 64,** _____ Rule: _____

3. **57, 48, 39, 20, 11,** _____ Rule: _____

4. **11, 18, 25, 32, 39,** _____ Rule: _____

Fill in the missing numbers in a pattern and then write a rule for each pattern.

5. **3, 7, 11,** _____, **19,** _____ Rule: _____

6. **97, 89, 81,** _____, _____, **57** Rule: _____

7. **43, 38,** _____, **33,** _____, **23** Rule: _____

For questions 8-10, use the table below.

Manuel's Savings

Week	1	2	3	4
Amount	\$13	_____	\$29	\$37

8. How much money does Manuel save each week? _____

9. What is Manuel's total savings in week 2? _____

10. Manuel has a bill to pay amounting to \$65. If she continues the saving pattern, will she have enough money saved for paying the bill by week 7? _____

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Answer Key

3.OA.D.9: Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

Write the next number in the number sequence and then find a rule for each sequence.

- 1. 5, 8, 11, 14, 17, 20 Rule: Add 3.
- 2. 24, 34, 44, 54, 64, 74 Rule: Add 10.
- 3. 57, 48, 39, 30, 21, 12 Rule: Subtract 9.
- 4. 11, 18, 25, 32, 39, 46 Rule: Add 7.

Fill in the missing numbers in a pattern and then write a rule for each pattern.

- 5. 3, 7, 11, 15, 19, 23 Rule: Add 4.
- 6. 97, 89, 81, 73, 65, 57 Rule: Subtract 8.
- 7. 43, 38, 33, 28, 23, 18 Rule: Subtract 5.

For questions 8-10, use the table below.

Manuel's Savings

Week	1	2	3	4
Amount	\$13	_____	\$29	\$37

- 8. How much money does Manuel save each week? \$8
- 9. What is Manuel's total savings in week 2? \$21
- 10. Manuel has a bill to pay amounting to \$65. If she continues the saving pattern, will she have enough money saved for paying the bill by week 7? No.