Number patterns and flow diagrams

Name: _____ **Date:** _____

Remember: First find the **rule**: subtract each number from the next one. If the jump is the same every time, you add it. **Why?** A pattern repeats its rule, so the rule predicts the next number.

1. Write the next two numbers: 4, 8, 12, 16, ___, ___

Answer: _____

2. Write the next two numbers: 85, 80, 75, 70, ___, ___

Answer: _____

3. Write the next number: 3, 6, 12, 24, ___

Answer: _____

4. What is the rule? 7, 13, 19, 25, 31

Answer: _____

5. Fill in the missing number: 15, 24, ___, 42, 51

Answer: _____

6. Fill in the missing number: 200, 175, 150, ___, 100

Answer: _____

7. Complete the flow diagram.



Answer: _____

8. Complete the flow diagram.



Answer: _____

9. What is the rule in the flow diagram?



Answer: _____

10. How many matchsticks do you need for 6 squares in a row?



Answer: _____

11. What is the 12th number in the pattern 5, 10, 15, 20 ...?

Answer: _____

12. Will 345 be in the pattern 5, 10, 15, 20 ...? Why?

Answer: _____

13. Thandi has R20. Every week she saves another R15. How much does she have after 6 weeks?

Answer: _____

14. Write the next number: 1, 3, 6, 10, 15, ___

Answer: _____

15. The rule is × 6. The output is 48. What was the input?

Answer: _____

I got _____ out of 15 ☆ ☆ ☆

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Number patterns and flow diagrams – Memo

Show your child the steps – not just the answer.

1. **20, 24**
   Add 4 each time.

2. **65, 60**
   Subtract 5 each time.

3. **48**
   Multiply by 2 each time: 24 × 2 = 48.

4. **Add 6**
   13 – 7 = 6, 19 – 13 = 6 …

5. **33**
   The rule is + 9: 24 + 9 = 33.

6. **125**
   The rule is – 25: 150 – 25 = 125.

7. **12, 20, 32**
   3 × 4 = 12; 5 × 4 = 20; 8 × 4 = 32

8. **25, 40, 55**
   10 + 15 = 25; 25 + 15 = 40; 40 + 15 = 55

9. **× 5**
   2 × 5 = 10; 4 × 5 = 20; 6 × 5 = 30

10. **19**
    1 square = 4; every new square + 3: 4 + 3 × 5 = 19

11. **60**
    The pattern is the 5 times table: 12 × 5 = 60.

12. **Yes, it ends in 5**
    345 ÷ 5 = 69: it is in the 5 times table.

13. **R110**
    R20 + 6 × R15 = R20 + R90 = R110

14. **21**
    The jump grows by 1 each time: + 2, + 3, + 4, + 5, + 6.

15. **8**
    Work back with the opposite: 48 ÷ 6 = 8.

Stars: 8 right = 1 star · 12 right = 2 stars · 15 right = 3 stars ☆ ☆ ☆

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