

Ollie's Leaf Puzzles — Extension Version

Growing patterns and equivalent sentences



"Some patterns grow in clever ways," says Ollie. "Describe the rule precisely."

1. Find each unknown: a) $\square - 17 = 48$ _____ b) $100 - \square = 63$ _____

2. Describe the rule and give the next two terms: 1, 2, 4, 8, 16, _____ ,
_____. Rule: _____

3. This pattern goes 4, 7, 10, 13... Will 30 ever appear? Explain why or why not.

4. Write three different number sentences that all equal 24 (use +, -, ×).

5. Pip's star pattern adds 2, then 4, then 6, then 8... Starting at 1, write the first six numbers.