

Playing with Sequences

This activity will introduce arithmetic and geometric sequences (and a few others, like the Fibonacci sequence) using inquiry-based-learning. Cut out the following 14 sequences so that each group of students has a set. Tell each group to figure out the patterns in the sequences (let them write on the slips of paper), then have them group the sequences that seem similar. As a class, discuss the groupings, the types of sequences, and how you could move from the examples in this activity to formulas for each sequence.

2, 6, 10, 14, ...

1, 1, 2, 3, 5, 8, ...

1, 2, 4, 7, ...

25, 19, 13, ...

1, 3, 9, ...

2, 6, 18, ...

18, 12, 8, ...

48, 12, 3, ...

18, 15, 12, ...

2, 6, 14, 26, ...

1, 4, 9, 16, ...

2, 5, 10, 17, ...

5, 9, 13, 17, ...

1, 4, 16, 64, ...