

Mathematics

# Sequences

## Descending arithmetic sequences

### Downloadable Resource

Ms Jones



# Try this

Describe the sequences in the highlighted columns.

What's the same or different?

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25

-1	-2	-3	-4	-5
-6	-7	-8	-9	-10
-11	-12	-13	-14	-15
-16	-17	-18	-19	-20
-21	-22	-23	-24	-25

4	3	2	1	0
-1	-2	-3	-4	-5
-6	-7	-8	-9	-10
-11	-12	-13	-14	-15
-16	-17	-18	-19	-20



# Independent task

Match the cards to make sets of  $n^{\text{th}}$  term rules, sequences and descriptions.

Create missing cards so each set has three.

...

...

1, -3, -7, -11, ...

1, 6, 11, 16, ...

$-5n + 4$

...

...

$4n - 5$

Sequence starts at 1 and decreases by 5

...

...

Sequence starts at -1 and increases by 5



# Explore

Xavier and Yasmin are discussing the arithmetic sequence below.

2, 5, 8, 11, 14, ...

I'm going to multiply every term in the sequence by 3.

I'm going to multiply every term in the sequence by -1.

How will the sequences change?

How will the  $n^{\text{th}}$  term rules change?

