

Name: _____

Introduction to Sequences

Find the next three terms in each sequence.

1) 1, -1, 1, -1, 1, ...

2) 10, 15, 20, 25, ...

3) 4, 16, 36, 64, 100, ...

4) 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, ...

Find the tenth term in each sequence.

5) $1, \frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \dots$

6) -1, -4, -9, -16, -25, ...

7) -4, 12, -36, 108, -324, ...

8) -16, 48, -144, 432, -1296, ...

Find the first four terms in each sequence.

9) $a_n = \frac{2n+1}{n}$

10) $a_n = n^2 + 1$

Name: _____

Date: _____ Period: _____

1) 1, 10, 100, 1000, 10000, ...

2) $\frac{1}{2}, \frac{1}{3}, \frac{2}{3}, \frac{1}{2}, \frac{1}{10}, \dots$

3) 10, 20, 30, 40, 50, ...

4) -1, 10, -100, 1000, -10000, ...

5) 1, 4, 9, 16, 25, ...

6) -16, -32, -48, -64, -80, ...

7) 10, -20, 40, 80, $\frac{1}{2}, \dots$

8) 16, 48, 144, 432, 1296, ...

9) $a_n = 2^{n-1}$

10) $a_n = \frac{n^2}{2n+1}$