**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ January 25, 2018**

**CC Algebra**

**Arithmetic & Geometric Sequences**

1. Find the 9th term given *a*1 = -15 and *r* =3
2. Find the 8th term of the geometric sequence

96, 48, 24, 12, ...

1. The first term of an arithmetic sequence is 4 and the common difference is 10.

a) Write an explicit formula for the sequence

b) Find the 6th term of the sequence.

1. Given the sequence: {5, 7, 9, 11, ...}

**a)** Write an explicit formula that generates this   
sequence

**b)** What is the 11th term of the sequence?

1. Write a rule for the *nt*h term of the geometric sequence 2, -8, 32, -128,.... Then find *a*8.
2. In a geometric sequence *r* = -2 and *a*3 = 16.

a. Find the value of *a*1

b. Write the rule for the *n*th term of this sequence.

1. In a geometric sequence r = 3 and a2 = 12
   1. Find the value of a1
   2. Write the rule for the nth term of this sequence.
2. Find the 20th term of the sequence: {19, 9, -1, -11, ...}
3. Find the 37th term of the sequence given by:

*f*(1) = 3 ; *d* = 4