Practice worksheet | Sequences and series

Geometric sequences

Name: _____ Date: _____

6 questions | 13 marks

1. Find r, u_6 for $4, 12, 36, \ldots$. [2 marks]

2. Find u_8 if $a = 128, r = -\frac{1}{2}$. [2 marks]

3. A positive geometric sequence has $u_2 = 10, u_5 = 80$. Find a, r. [2 marks]

4. Is $2, 6, 18, 55$ geometric? [2 marks]

5. Find both real geometric sequences with $u_1 = 8, u_3 = 2$. Give the first four terms. [2 marks]

6. A culture has 300 cells at hour zero and doubles hourly. Give its rule and first whole hour above 10,000. [3 marks]