Math 1   Name_____
PRACTICE Quiz 5.2 Geometric Sequences

Determine if the sequence is geometric. If it is, find the common ratio, the term named in the problem, and the explicit formula.

1) $-2, \ -\dfrac{2}{3}, \ -\dfrac{2}{9}, \ -\dfrac{2}{27}, \ ...$

    Is it geometic: _____

    Common ratio: _____

    Explicit formula: a(n)=_____

    Find a_{12}

2) 0.5, 1, 2, 4, ...
    Is it geometic: _____

    Common ratio: _____

    Explicit formula: a(n)=_____

    Find a_{11}

3) 1, −3, 9, −27, ...
    Is it geometic: _____

    Common ratio: _____

    Explicit formula: a(n)=_____

    Find a_{11}

4) −2, −4, −8, −16, ...
    Is it geometic: _____

    Common ratio: _____

    Explicit formula: a(n)=_____

    Find a_{12}

Name_____

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1) $-2, \ -\dfrac{2}{3}, \ -\dfrac{2}{9}, \ -\dfrac{2}{27}, \ ...$

   Is it geometic: _____

   Common ratio: _____

   Explicit formula: a(n)=_____

   Find a_{12}

   Common Ratio: $r = \dfrac{1}{3}$

   $a_{12} = -\dfrac{2}{177147}$

   Explicit: $a_n = -2 \cdot \left(\dfrac{1}{3}\right)^{n-1}$

2) $0.5, \ 1, \ 2, \ 4, \ ...$

   Is it geometic: _____

   Common ratio: _____

   Explicit formula: a(n)=_____

   Find a_{11}

   Common Ratio: $r = 2$

   $a_{11} = 512$

   Explicit: $a_n = 0.5 \cdot 2^{n-1}$

3) $1, \ -3, \ 9, \ -27, \ ...$

   Is it geometic: _____

   Common ratio: _____

   Explicit formula: a(n)=_____

   Find a_{11}

   Common Ratio: $r = -3$

   $a_{11} = 59049$

   Explicit: $a_n = (-3)^{n-1}$

4) $-2, \ -4, \ -8, \ -16, \ ...$

   Is it geometic: _____

   Common ratio: _____

   Explicit formula: a(n)=_____

   Find a_{12}

   Common Ratio: $r = 2$

   $a_{12} = -4096$

   Explicit: $a_n = -2 \cdot 2^{n-1}$