Arithmetic & Geometric Sequences

Tell whether the sequence is arithmetic, geometric or neither. Explain why or why not.
Write the **explicit and recursive** rule for the sequences.

1) 6, 12, 24,…

2) 4,1,-2,-5,…

3) 2, 1, ½, .4,….

4.) $1, -\frac{1}{2}, \frac{1}{4}, -\frac{1}{6}$…

5) 2, 2.2, 2.4,2.6,…

6.) 16, -8, 4, -2,…

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Tell whether the sequence is arithmetic, geometric or neither. Explain why or why not.
Write the **explicit and recursive** rule for the sequences.

2) 6, 12, 24,…
Geometric
$f(n) = 2 \cdot f(n-1)$
$f(n) = 6(2)^{n-1}$

2) 4,1,-2,-5,…
Arithmetic
$f(n) = f(n-1) - 3$
$f(n) = -3(n-1) + 4$

4) 2, 1, ½, .4,….
Geometric
$f(n) = \frac{1}{2} \cdot f(n-1)$
$f(n) = 2\left(\frac{1}{2}\right)^{n-1}$

4.) $1, -\frac{1}{2}, \frac{1}{4}, -\frac{1}{6}$…
Neither

5) 2, 2.2, 2.4,2.6,…
Arithmetic
$f(n) = f(n-1) + 0.2$
$f(n) = 0.2(n-1) + 2$

6.) 16, -8, 4, -2,…
Geometric
$f(n) = -\frac{1}{2} \cdot f(n-1)$
$f(n) = 16\left(-\frac{1}{2}\right)^{n-1}$