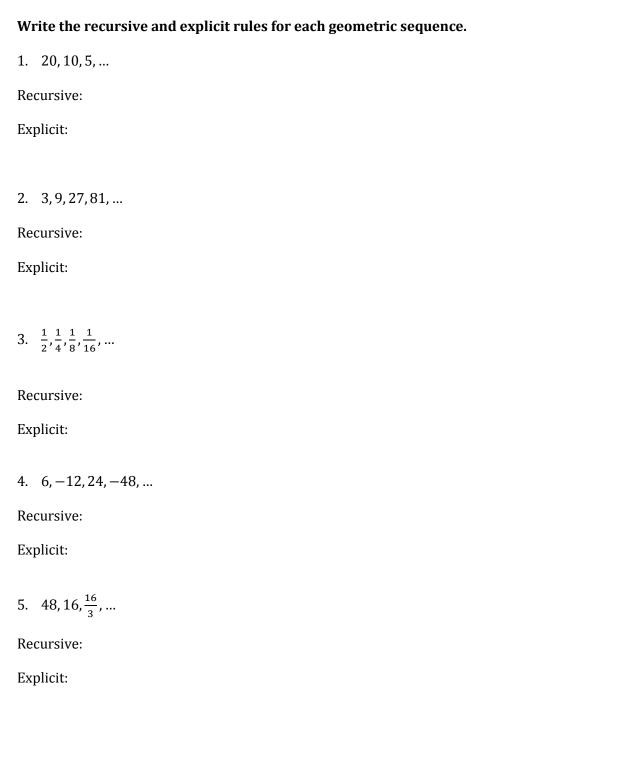
Writing Recursive and Explicit Rules for Geometric Sequences



Writing Recursive and Explicit Rules for Geometric Sequences

Write the recursive and explicit rules for each geometric sequence.

Recursive:
$$f(n) = \frac{1}{2} \cdot f(n-1)$$

Explicit:
$$f(n) = 20 \left(\frac{1}{2}\right)^{n-1}$$

Recursive:
$$f(n) = 3 \cdot f(n-1)$$

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

3.
$$\frac{1}{2}$$
, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, ...

Recursive:
$$f(n) = \frac{1}{2} \cdot f(n-1)$$

Explicit:
$$f(n) = \frac{1}{2} \left(\frac{1}{2}\right)^{n-1}$$

4.
$$6, -12, 24, -48, \dots$$

Recursive:
$$f(n) = -2 \cdot f(n-1)$$

Explicit:
$$f(n) = 6(-2)^{n-1}$$

5. 48, 16,
$$\frac{16}{3}$$
, ...

Recursive:
$$f(n) = \frac{1}{3} \cdot f(n-1)$$

Explicit:
$$f(n) = 48 \left(\frac{1}{3}\right)^{n-1}$$