Algebra 2 Name_____ ID: 1

12.1-12.2 Review

Date_____ Period____

Arithmetic:
Find the explicit formula and the recursive formula.

1) 18, 10, 2, −6, ...

2) 28, 8, −12, −32, ...

Given a term in an arithmetic sequence and the common difference find the explicit formula.

3) $a_{10} = -1814,\ d = -200$

Given two terms in an arithmetic sequence find the explicit formula.

4) $a_{12} = -95$ and $a_{34} = -293$

Geometric:
Find the explicit formula and the recursive formula.

5) 3, 12, 48, 192, ...

6) −2, −8, −32, −128, ...

Given a term in a geometric sequence and the common ratio find the explicit formula.

7) $a_4 = -216,\ r = 6$

Given two terms in a geometric sequence find the explicit formula and the recursive formula.

8) $a_6 = 6250$ and $a_3 = 50$

Answers to 12.1-12.2 Review (ID: 1)

1) Explicit: $a_n = 18 + (n - 1) \cdot -8$
Recursive: $a_n = a_{n-1} - 8$
$a_1 = 18$

2) Explicit: $a_n = 28 + (n - 1) \cdot -20$
Recursive: $a_n = a_{n-1} - 20$
$a_1 = 28$

3) $a_n = -14 + (n - 1) \cdot -200$

4) $a_n = 4 + (n - 1) \cdot -9$

5) Explicit: $a_n = 3 \cdot 4^{n-1}$
Recursive: $a_n = a_{n-1} \cdot 4$
$a_1 = 3$

6) Explicit: $a_n = -2 \cdot 4^{n-1}$
Recursive: $a_n = a_{n-1} \cdot 4$
$a_1 = -2$

7) $a_n = -6^{n-1}$

8) Explicit: $a_n = 2 \cdot 5^{n-1}$
Recursive: $a_n = a_{n-1} \cdot 5$
$a_1 = 2$