

Sequence practice

Date _____ Period _____

Find the next three terms in each sequence.

1) $-12, -2, 8, 18, 28, \dots$

2) $2, 2, \frac{8}{3}, 4, \frac{32}{5}, \dots$

3) $37, 42, 47, 52, 57, \dots$

Find the first four terms in each sequence.

4) $a_n = -32 \cdot \left(-\frac{1}{2}\right)^{n-1}$

5) $a_n = -8 \cdot \left(\frac{1}{2}\right)^{n-1}$

6) $a_n = 5 + 10n$

7) $a_n = na_{n-1}$
 $a_1 = -2$

8) $a_n = a_{n-1} + 200$
 $a_1 = 11$

9) $a_n = a_{n-1} + 6$
 $a_1 = -23$

Rewrite each series as a sum.

10) $\sum_{n=4}^8 (20 - n^2)$

11) $\sum_{a=1}^6 (20 - a)$

12) $\sum_{a=4}^7 (a + 400)$

Rewrite each series using sigma notation.

13) $1 + 2 + 3 + 4$

14) $5 + 25 + 125 + 625$

15) $201 + 202 + 203 + 204 + 205$

16) $3 + 6 + 9 + 12$

17) $5 + 25 + 125 + 625 + 3125 + 15625$