

Name : _____

Score : _____

Teacher : _____

Date : _____

General Sequences

For each sequence give the next 3 terms and both the explicit and recursive formulas.

1) 91 , 88 , 83 , 76

2) 36 , 34 , 30 , 22

3) 8 , 16 , 32 , 64

4) 29 , 26 , 21 , 14

5) 3 , 6 , 9 , 12

6) 12 , 24 , 48 , 96

For each formula, give the first 4 terms, with a_1 being the first term.

7) $a_n = a_{n-1} + 2, a_1 = -6$

8) $a_n = n^2$

9) $a_n = 78 - 2^n$

10) $a_n = a_{n-1} + 9(n-1), a_1 = 2$

11) $a_n = 3n - 4$

12) $a_n = a_{n-1} - 2^{n-1}, a_1 = 90$



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General Sequences

For each sequence give the next 3 terms and both the explicit and recursive formulas.

1) 91 , 88 , 83 , 76

67 , 56 , 43

$$a_n = 92 - n^2$$

$$a_n = a_{n-1} - (2n - 1), a_1 = 91$$

2) 36 , 34 , 30 , 22

6 , -26 , -90

$$a_n = 38 - 2^n$$

$$a_n = a_{n-1} - 2^{n-1}, a_1 = 36$$

3) 8 , 16 , 32 , 64

128 , 256 , 512

$$a_n = 4 \cdot 2^n$$

$$a_n = a_{n-1} \cdot 2, a_1 = 8$$

4) 29 , 26 , 21 , 14

5 , -6 , -19

$$a_n = 30 - n^2$$

$$a_n = a_{n-1} - (2n - 1), a_1 = 29$$

5) 3 , 6 , 9 , 12

15 , 18 , 21

$$a_n = 3n$$

$$a_n = a_{n-1} + 3, a_1 = 3$$

6) 12 , 24 , 48 , 96

192 , 384 , 768

$$a_n = 6 \cdot 2^n$$

$$a_n = a_{n-1} \cdot 2, a_1 = 12$$

For each formula, give the first 4 terms, with a_1 being the first term.

7) $a_n = a_{n-1} + 2, a_1 = -6$

-6 , -4 , -2 , 0

8) $a_n = n^2$

1 , 4 , 9 , 16

9) $a_n = 78 - 2^n$

76 , 74 , 70 , 62

10) $a_n = a_{n-1} + 9(n-1), a_1 = 2$

2 , 11 , 29 , 56

11) $a_n = 3n - 4$

-1 , 2 , 5 , 8

12) $a_n = a_{n-1} - 2^{n-1}, a_1 = 90$

90 , 88 , 84 , 76

