

Math Worksheets

Arithmetic Sequences


 Find the next three terms of each arithmetic sequence.

1) 32, 26, 20, 14, 8, ...

2) -56, -44, -32, -20, ...

3) 17, 26, 35, 44, 53, ...

4) 5, 11, 17, 23, 29, ...


 Given the first term and the common difference of an arithmetic sequence find the first five terms and the explicit formula.

5) $a_1 = 20, d = 3$

7) $a_1 = 32, d = 6$

6) $a_1 = -11, d = -5$

8) $a_1 = 240, d = -80$


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

9) $a_{20} = -500, d = -50$

11) $a_{51} = -88.2, d = -5.2$

10) $a_{24} = 98, d = 7$

12) $a_{68} = -980, d = -27$

 Given a term in an arithmetic sequence and the common difference find the recursive formula and the three terms in the sequence after the last one given.

13) $a_{21} = -187, d = -9$

15) $a_{31} = 58.2, d = 1.8$

14) $a_{12} = 63.5, d = 5.2$

16) $a_{42} = 6.8, d = 0.4$

Answers of Worksheets

Arithmetic Sequences

- 1) 2, -4, -10
- 2) -8, 4, 16
- 3) 62, 71, 80
- 4) 35, 41, 47
- 5) First Five Terms: 20, 23, 26, 29, 32, Explicit: $a_n = 20 + 3(n - 1)$
- 6) First Five Terms: -11, -16, -21, -26, -31, Explicit: $a_n = -11 - 5(n - 1)$
- 7) First Five Terms: 32, 38, 44, 50, 56, Explicit: $a_n = 32 + 6(n - 1)$
- 8) First Five Terms: 240, 160, 80, 0, -80, Explicit: $a_n = 240 - 80(n - 1)$
- 9) First Five Terms: 450, 400, 350, 300, 250, Explicit: $a_n = 450 - 50(n - 1)$
- 10) First Five Terms: -63, -56, -49, -42, -35, Explicit: $a_n = -63 + 7(n - 1)$
- 11) First Five Terms: 171.8, 166.6, 161.4, 156.2, 151, Explicit: $a_n = 171.8 - 5.2(n - 1)$
- 12) First Five Terms: 829, 802, 775, 748, 721, Explicit: $a_n = 829 - 27(n - 1)$
- 13) Next 3 terms: -196, -205, -214, Recursive: $a_n = a_{n-1} - 9, a_1 = -7$
- 14) Next 3 terms: 68.7, 73.9, 79.1, 84.3 Recursive: $a_n = a_{n-1} + 5.2, a_1 = 6.3$
- 15) Next 3 terms: 60, 61.8, 63.6, Recursive: $a_n = a_{n-1} + 1.8, a_1 = 4.2$
- 16) Next 3 terms: 7.2, 7.6, 8, Recursive: $a_n = a_{n-1} + 0.4, a_1 = -9.6$