

3-16 Arithmetic Sequences (ver1)_hw

**Find the common difference. Determine if the sequence is arithmetic.
If it is, find the next three terms in the sequence.**

1) 1, 3, 5, 7, ...

2) 35, 39, 43, 47, ...

3) 24, 16, 8, 0, ...

4) 3, 9, 27, 81, ...

5) -26, 174, 374, 574, ...

6) 11, -9, -29, -49, ...

7) 28, 19, 10, 1, ...

8) -19, -119, -219, -319, ...

9) -37, 63, 163, 263, ...

10) -23, -223, -423, -623, ...

11) -2, -10, -50, -250, ...

12) -39, -46, -53, -60, ...

13) 25, 17, 9, 1, ...

14) 16, 24, 32, 40, ...

15) -10, -8, -5, -1, ...

16) -11, -31, -51, -71, ...

17) -12, -7, -2, 3, ...

18) 63, 632, 6322, 63222, ...

19) 32, -68, -168, -268, ...

20) -28, -19, -10, -1, ...

Answers to 3-16 Arithmetic Sequences (ver1)_hw

- 1) Common Difference: $d = 2$
Yes, arithmetic
Next 3 terms: 9, 11, 13
- 2) Common Difference: $d = 4$
Yes, arithmetic
Next 3 terms: 51, 55, 59
- 3) Common Difference: $d = -8$
Yes, arithmetic
Next 3 terms: -8, -16, -24
- 4) Not arithmetic
- 5) Common Difference: $d = 200$
Yes, arithmetic
Next 3 terms: 774, 974, 1174
- 6) Common Difference: $d = -20$
Yes, arithmetic
Next 3 terms: -69, -89, -109
- 7) Common Difference: $d = -9$
Yes, arithmetic
Next 3 terms: -8, -17, -26
- 8) Common Difference: $d = -100$
Yes, arithmetic
Next 3 terms: -419, -519, -619
- 9) Common Difference: $d = 100$
Yes, arithmetic
Next 3 terms: 363, 463, 563
- 10) Common Difference: $d = -200$
Yes, arithmetic
Next 3 terms: -823, -1023, -1223
- 11) Not arithmetic
- 12) Common Difference: $d = -7$
Yes, arithmetic
Next 3 terms: -67, -74, -81
- 13) Common Difference: $d = -8$
Yes, arithmetic
Next 3 terms: -7, -15, -23
- 14) Common Difference: $d = 8$
Yes, arithmetic
Next 3 terms: 48, 56, 64
- 15) Not arithmetic
- 16) Common Difference: $d = -20$
Yes, arithmetic
Next 3 terms: -91, -111, -131
- 17) Common Difference: $d = 5$
Yes, arithmetic
Next 3 terms: 8, 13, 18
- 18) Not arithmetic
- 19) Common Difference: $d = -100$
Yes, arithmetic
Next 3 terms: -368, -468, -568
- 20) Common Difference: $d = 9$
Next 3 terms: 8, 17, 26