

Bellwork Alg 2B Tuesday, December 19, 2017

Find the missing terms in each arithmetic sequence.

1. 77, _____, 103, ... 2. 12, _____, _____, _____, 22, ...

3. $-17, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, -5, \dots$

4. Write the explicit formula for this sequence: 18, 24, 30, 36, ...

5. Write the recursive formula for this sequence: 11, 17, 24, 32, 41, ...

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Bellwork Answers

Tue 12-19-17

1. 77, —, 103, ...

$$\frac{77+103}{2} = \frac{180}{2} = 90$$

(2) 12, 14.5, 17, 19.5, 22

$$\frac{12+22}{2} = \frac{34}{2} = 17$$
$$\frac{12+17}{2} = \frac{29}{2} = 14.5$$
$$\frac{17+22}{2} = \frac{39}{2} = 19.5$$

(3) -17, -14.6, -12.2, -9.8, -7.4, -5

$$-5 - (-17) = 12 \div 5 = 2.4 \rightarrow \text{common difference} = 2.4$$

(4) $n = 1 \quad 2 \quad 3 \quad 4$
18, 24, 30, 36, ...
| | | |
3(6) 4(6) 5(6) 6(6)

$$a_n = 6(n+2)$$

(5) $n = 1 \quad 2 \quad 3 \quad 4 \quad 5$
11, 17, 24, 32, 41
✓ ✓ ✓ ✓
+6 +7 +8 +9

$$a_1 = 11$$

$$a_n = (a_{n-1}) + (n+4)$$

2nd term added 6
3rd term added 7
4th term added 8
5th term added 9

} what was added was 4 more than term #