

Negative nth Term Sequences Worksheet

Solve each problem related to negative nth term sequences. Show all necessary working. Remember, a negative nth term sequence has a negative coefficient for n (e.g., $-3n + 7$).

1. Write down the first five terms of the sequence with nth term $-4n + 10$.
2. Find the nth term of the sequence: 8, 3, -2, -7, -12.
3. The nth term of a sequence is $-2n + 5$. What is the 7th term?
4. Which term in the sequence with nth term $-5n + 12$ will be equal to -23?
5. A sequence starts: 14, 11, 8, 5, 2. Find the nth term.
6. If the nth term of a sequence is $-6n + 9$, for which value of n is the term equal to -21?
7. The nth term of a sequence is $-n + 4$. Is there a term in this sequence which is 0? If yes, which term?
8. The nth term of a sequence is $-3n + 13$. Find the value of n for which the term is -8.
9. Write the 10th term of the sequence with nth term $-7n + 15$.

Maths with Melissa

Answer Key

1. First five terms: 6, 2, -2, -6, -10
2. nth term: $-5n + 13$
3. 7th term: $-2 \times 7 + 5 = -14 + 5 = -9$
 $-5n + 12 = -23$
 $-5n = -23 - 12 = -35$
 $n = 7$
4. Difference: -3
First term: 14
nth term: $-3n + 17$
5. $-6n + 9 = -21$
 $-6n = -21 - 9 = -30$
 $n = 5$
6. $-n + 4 = 0$
 $n = 4$
Yes, the 4th term is 0.
7. $-3n + 13 = -8$
 $-3n = -8 - 13 = -21$
 $n = 7$
8. 10th term: $-7 \times 10 + 15 = -70 + 15 = -55$
9. First four terms: 18, 16, 14, 12
Sum: $18 + 16 + 14 + 12 = 60$