Year 9 Sequences and Functions – Foundation

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Year 9 · Maths · Sequences and Functions · Level 1 Foundation · 10 questions

Name _____ **Date** _____

A. Sequence and function skills

1. The first term of a sequence is 16. The term-to-term rule is 'divide by 2'. Write the first five terms.

Answer _____

2. The first term of a sequence is −2. The term-to-term rule is 'multiply by 2, then add 1'. Write the first five terms.

Answer _____

3. The nth term of a sequence is $n^2 - 5$. Write the first four terms.

Answer _____

4. The nth term of a sequence is $(1/2)n - 5$. Write the first four terms.

Answer _____

5. Find the nth term of the sequence 1 2/3, 2, 2 1/3, 2 2/3, ...

Answer _____

6. Find the nth term of the sequence 2 1/3, 2 2/3, 3, 3 1/3, ...

Answer _____

7. Find the nth term of the sequence 7, 10, 15, 22, 31, ... Answer _____

8. Find the nth term of the sequence 3, 6, 11, 18, 27, ... Answer _____

9. For the function $y = 5x^2 - 8$, find y when x = 5.

Answer _____

10. A pattern is made of a square of n by n counters with 4 extra counters, one at each corner. Pattern 1 has 5 counters, pattern 2 has 8, pattern 3 has 13 and pattern 4 has 20. Find the second difference, and the number of counters in pattern 6.

Answer _____