

/9K	/4A	/4C	/8T	Total	/25
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Name: _____ Date: _____

MCR3U

Quiz: Discrete functions and financial applications

/3
K

1. Determine the 20th term in the sequence that begins with the numbers 45, 39, 33, . . .

/3
T

2. Determine an equation for the general term, t_n , in an arithmetic sequence with $t_{10} = 50$ and $t_{27} = 152$.

/4
C

3. Explain how to determine whether a sequence is arithmetic or geometric. Provide examples to illustrate your explanation.

/3
K

4. Determine the sum of the first 8 terms in the series $2 + 6 + 18 + \dots$

5. Determine the sum of the arithmetic series $4 + 15 + 26 + \dots + 213$.

/3
K

/2
T

6. Determine the number of terms in the sequence $5, -10, 20, \dots, -10240$.

/3
T

7. Lucy wants to have \$18 000 in her account 3 years from now to buy a car. How much must she invest per month, if her account earns 3.6% annual interest, compounded monthly.

/4
A