

Name: _____

Math 20-1 Series & Sequences Unit - Color by Number Assignment

This is your Chapter 1 Assessment. To receive full marks, you will need to show all calculations using formulas from the 20-1 formula sheet. The color by number picture must be colored for this assignment to be considered towards your mark. You may print this assignment or draw it out by hand to complete the coloring.

1. The 20th term of an arithmetic sequence is 107, and the common difference is 5. Find t_1 .
...Color the solution **light green**.
2. Given the terms $t_{11} = 25$ and $t_{30} = 82$, find the common difference for an arithmetic sequence.
...Color the solution **dark blue**.
3. $5 + x$, 6, and $1 + 2x$, are consecutive terms in an arithmetic sequence. Find the value of x .
...Color the **light blue**.
4. For the arithmetic series, determine the number of terms. $t_1 = 3$, $d = 4$, $S_n = 465$.
...Color the solution **purple**.
5. The sum of the first eight terms of an arithmetic series is 176. The sum of the first nine terms is 216. Determine the sum of the first and ninth terms of the series.
...Color the solution **pink**.

6. Determine the number of terms in the geometric sequence; 4, 12, 36, ..., 78 732.
...Color the solution **grey**.
7. Determine the common ratio for a geometric sequence where $t_4 = -14$ and $t_{11} = 1792$.
...Color the solution **dark green**.
8. Determine the number of terms in the geometric series $4 + 20 + 100 + \dots + t_n$ if the sum is 15 624.
...Color the solution **orange**.
9. The first term of a geometric series is 3. The sum of the first two terms of the series is 15 and the sum of the first three terms of the series is 63. Determine the common ratio.
...Color the solution **yellow**.
10. A ball is dropped from a height of 2.0 m onto a floor. On each bounce the ball rises to 75% of the height from which it fell. Calculate the total distance the ball travels in the **downward direction (dropped)**, before coming to rest.
...Color the solution **red**.

