

Math 156 X01  
Assignment 3

Covers: Sections 3.2, 3.3, 4.1-4.3, 5.1  
Due: Thurs March 5, at 8:30am

INSTRUCTIONS:

This assignment will be marked for completion.

Solutions will be posted on the course website 24 hours after the deadline.

You may not copy the work of another person or AI.

Submit jpg or pdf files to the D2L Dropbox.

1. An arithmetic sequence has  $a_{21} = 33$  and  $a_{37} = -239$ . Find  $d$ .
2. An arithmetic sequence has  $a_3 = 26$  and  $d = 4$ . Find  $n$  so that  $a_n = 298$ .
3. Find a general formula for:  
11,  $\frac{44}{5}$ ,  $\frac{176}{25}$ ,  $\dots$
4. Find  $7 + \frac{7}{3} + \frac{7}{9} + \dots$ , or state that it is undefined.
5. Find  $\sum_{n=3}^{17} (6n + 1)$ .
6. State the order of the following expressions:
  - a)  $7n^2 + 3(2^n)$
  - b)  $1000 + 3 \log n$
  - c)  $2n + 3 \log n$
  - d)  $6n(n + 5)$
7. Re-order the expressions from Question 6 from largest order to smallest order.
8. State whether the following variables are qualitative, discrete, or continuous:
  - a) Total time a student has been logged in to D2L
  - b) Number of times a student has reset their password
  - c) What program a student is enrolled in