Design (Algorithm) for Homework 2

- Comment with my information and description at top of code.
- Define global variables needed throughout code.
- Create Boolean function to check if base 1 is odd and within proper range of 1-17.
    - Define variables
    - Do
        - Ask for user input.
        - Check range.
        - Check if odd using remainder.
    - While
    - Return value.
- Create Boolean function to check if base 2 is odd, within proper range of 3-19, and greater than Base 1.
    - Define variables.
    - Do
        - Ask for user input.
        - Check range.
        - Check that b1 < b2
        - Check if odd using remainder.
    - While
    - Return value.
- Create void function to draw Trapezoid.
    - Define parameters.
    - Ask for user input.
    - Draw Trapezoid.
- Create main function.
    - Display my information (department and course number, name, SamID, and e-mail address.).
    - Display what program does.
    - Bring in results from other functions.
    - Calculate height.

  - Calculate Trapezoid Area.
  - Output what the area is.
- END PROGRAM.

ATTEMPT 1

$b_1 = 5$

$b_2 = 13$

(1/2) * height * (b_1 + b_2)

(1/2) * (((b_2 – b_1) / 2) + 1) * (b_1 + b_2)

(1/2) * (((13 – 5) / 2) + 1) * (5 + 13)

(1/2) * (((8) / 2) +1) * (18)

(1/2) * (5) * (18)

(2.5) * (18)

= 45

Attempt 2

b1 = 3

b2 = 9

(1/2) * height * (b1 + b2)

(1/2) * (((b2 – b1) / 2) + 1) * (b1 + b2)

(1/2) * (((9 – 3) / 2) + 1) * (3 + 9)

(1/2) * (((6) / 2)) + 1) * (12)

(1/2) * (4) * (12)

(2) * (12)

= 24