1. Fill in the blanks for the following problems:
   a. This subfunction/Subprocedure (circle one) takes in values x, y, and z, & returns the sum & mean.

   ```vbc
   Sub 1var_stats(ByVal __ As Single, ByVal __ As Single, ByVal __ As Single, ByRef sum As Single,
   ByVal __ As Single, ByRef mean As Single)
   sum = __________________
   mean = __________________
   End Sub
   ```

   b. This subfunction/subprocedure (circle one) takes in values of (x1, y1), (x2, y2) and x. It calculates the linear trendline between the two points, calculates y(x), and returns y, m, and b.

   ```vbc
   Sub linear (____ x1 As Single, ____ y1 As Single, ____ x2 As Single, ____ y2 As Single,
   ____ x As Single, ____ y As Single, ____ m As Single, ____ b As Single)
   m = (y2–y1) / (x2–x1)
   b = _____________
   y = m*x + b
   End Sub
   ```

   c. This subfunction/subprocedure (circle one) models a statics problem with a horizontal rod and a tension force T at angle theta. It takes in values of T and theta and returns T_x and T_y

   ```vbc
   Sub T_components(____________, ________________, ________________, ________________)
   _____ = T * _____(theta)
   _____ = T * _____(theta)
   End Sub
   ```

2. To call each above subprocedure from the main program using similarly-named variables:
   a. Call 1var_stats(____, ____ , ____)
   b. Call ________ (t1, V1, t2, V2, t, V, m, b)
   c. Call T_components(____, ______, ______, ______)
**SubFunctions:**
- **Purpose:** Bring one “unknown” value back to main program
- **Format:**
  - Using a SubFunction in a Main program:
    Variable=function_name(variables brought down)
  - Writing a SubFunction:
    Function function_name([passtype] var_name [As Type],...) [As Type]
    Statements if necessary
    Function_name=[expression]
    End Function

**SubProcedure/SubRoutines:**
- **Purpose:** Bring multiple “unknowns” back to main program
- **Format:**
  - Using a SubFunction in a Main program:
    Call Procedure_name(variables brought down, variables finding in subprocedure)
  - Writing a SubProcedure:
    Sub Procedure_name([passtype] var_name [As Type],...) [As Type]
    Statements
    End Sub

Note: Everything in [ ] is something that needs to be properly filled in:
- [passtype] is ByVal or ByRef
- [As Type] is single, int, string, etc.

**ByRef and ByVal:**
- **ByRef:**
  - Always used with arrays
  - Bringing calculated values from subprogram back up
  - Allows subprogram to change the value
- **ByVal:**
  - Used for known variables brought down from main program
  - Does not allow subprogram to change the value