# Lab 03 (Due Thursday, February 5th, 2015)

**Lab 03: Soil Texture Calculator**

Write an Excel routine for determining soil textural class given percent sand and percent clay, and show the point on the textural triangle in the file provided.

* Soils with more than 30% clay are clays.
* Soils with 20 - 30% clay are clay loams.
* Soils with less than 20% clay are loams unless they have more than 80% sand.
* Soils with more than 80% sand are sands.
* Soils with more than 50% sand are sandy.
* Soils with more than 50% silt are silty.
* A silty loam is called a silt loam.

|  |  |  |  |
| --- | --- | --- | --- |
| Percent Sand | Percent Clay | Percent Silt | Soil Texture |
| 44 | 33 | **27** | **Clay** |

Think of possible entry errors and add error traps; flag negative numbers, for example.

Turn in your excel file along with your report.



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| **VBA Built-in Data Types** |
| **Data Type** | **Bytes Used** | **Range of Values** |
| Boolean | 2 | True or False (Positive or Negative) |
| Integer | 2 | -32,768 to 32767 |
| Long | 4 | -2,147,483,648 to 2,147,483,647 |
| Single | 4 | -3.402823E38 to 1.401298E45 |
| Double (negative) | 8 | -1.79769313486232E308 to -4.94065645841247E-324 |
| Double (positive) | 8 | 4.94065645841247E-324 to 1.79769313486232E308 |
| Currency | 8 | -922,337,203,685,477.5808 to 922,337,203,685,477.5807 |
| Date | 8 | 1/1/100 to 12/31/9999 |
| String | 1 per character | Varies according to the number of characters |
| Object | 4 | Any defined object |
| Variant | Varies | Any data type |
| Used defined | Varies | Varies |