CS-105 Assignment 2

Part I:

1. Isthisgood1 is a valid name for a MATLAB variable because it starts with a letter and all characters are letters, numbers, or underscores. I assigned 9 to this name.
2. How_Are_You is a valid name for a MATLAB variable because it starts with a letter and all characters are letters, numbers, or underscores. I assigned 85 to this name.
3. How_Are_You? is not a valid name for a MATLAB variable because the "?" is not a viable character according to MATLAB. I tried to assign a value, 5000, to this name and it said "Error: Unexpected MATLAB operator."
4. 4x is not a valid name for a MATLAB variable because a name for a variable must begin with a letter. I tried to assign a value, 200, to this name and it said "Error: Unexpected MATLAB expression."
5. _help is not a valid name for a MATLAB variable because a variable's name must start with a letter. I tried to assign a value, 666, to this name, and it said "Error: The input character is not valid in MATLAB statements or expressions."

Part II: u=1, v=3

6. $\frac{4u}{3v}$ =0.4444 (4*u)/(3*v)
7. $\frac{2v^{-2}}{(u+v)^2}$ =0.0139 (2*v^2)/(u+v)^2
8. $\frac{v^3}{v^3-u^3}$ =1.0385 v^3/(v^3-u^3)
9. $\frac{4}{3}\pi v^2$ =37.6991 (4/3)*(4*atan(1))*v^2

Part III: a=2, b=3, c=–1, P=1000, r=8.5

10. Let x=0
    a. $y = ax + b$ => y=3
    b. $y = ax^2 + bx + c$ => y= -1
11. Let x=20
    a. $y = ax + b$ => 43
    b. $y = ax^2 + bx + c$ => y=859
12. Let n=5
    a. $A = P(1 + r)^n$ => A=7.7378e+07