1)

```
data X;    /* set random number seed */
do i = 1 to 300;
  Max = 10;
  xVar = floor((1+Max)*ranuni(123));
  vVar = rand('normal', 0, 1);
  eVar = rand('normal', 0, 1);
  output;
end;
run;
```

2)

A)

RSquared = 0.9987

P-Value = <.0001

Yes the null hypothesis can be rejected!

B)

Regression Equation: a=1*x

Equation to Generate A: a = 0.99891x + 0.01292

The coefficient of x differs by 1-0.99891 =0.00109

The intercept differs by 0.01292

C)

RSquare = 0.9740

P-Value = <.0001

Yes the null hypothesis may be rejected!

D)

Regression Equation: y = a + x

Equation to Generate y : y = 0.35950x + 1.62357a + 0.04345

Distance between the two x coefficients is 0.6405

Distance between the two a coefficients is -.62357

Distance between two intercepts is 0.04345

E)

RSquared = 0.0009

P-Value = 0.6043

No this hypothesis cannot be rejected!