Empirical Exercise to illustrate that, when performing a t- test at a significance level of alfa, we commit Type I error, alfa x100 percent of the times.

This is what you should write about:
Explain in detail what is the program doing and report the value of how many times you comitt type one error.

This is the structure of the program, you can give the names you want to your variables:

```
nulldata n
genr x2 = 100 + normal()
loop m--progressive
genr eps = normal()
genr y = beta 1 +beta 2*x2+eps
ols y const x2
genr b1 = $coeff(const)
genr b2 = $coeff(x2)
genr stb2 = $stderr(x2)    this instruction gets the standar deviation of beta 2 hat from the OLS rutine
genr alfa2 = (abs(name of estimated coefficient -true coefficient)/stb2))>t for alfa/2, 50-2)    in this instruction    abs    is a command in GRETL that calculates the absolute value   . In this command a 0 or a 1 is stored when the equation inside the parenthesis is true. The t value you should introduce once you have looked at the tables.
store name.gdt b1 b2 stb2 alfa2
endloop
genr typeI = sum(alfa2)    here    sum    is a command that sums the values in the variable that is in parenthesis   .
```

Good luck,