

# Program a Game in 60 Seconds

Programming is a vital modern skill for engineering, science, and logic. Graphing calculators are the perfect platform on which to learn programming: they're ubiquitous in schools, programming them is easy, and everything you need is built-in.

Use this emulated calculator to make your first program: a guessing game.

```
NORMAL FLOAT AUTO REAL Radian MP
PROGRAM: GUESS
:randInt(1,50)→N
:Repeat G=N
:Prompt G
:If G>N
:Disp "TOO HIGH"
:If G<N
:Disp "TOO LOW"
:End
:Disp "CORRECT"
```

Learn more at:



## Try it yourself!

- Create the program:**  
Press **PRGM**, go to **NEW**, and type a program name. Alpha-lock (**A**) is on, so just press the keys that have the letter you want over them. Press **ENTER** when you're done to create the new program.
- Type `randInt(1,50)→N`:**  
You can't just type out commands as letters. Find the `randInt` command in the **PROB** menu: **MATH** **▶** **▶** **▶** and choose 5: `randInt`. Type `1,50`, then press the **STO▶** key for the store (`→`) arrow. Finally, type the variable `N` with **ALPHA** **LOG**. Go to the next line with **ENTER**. This line creates a random number between 1 and 50 and stores it into `N`.
- Type Repeat `G=N`:**  
Find Repeat in **PRGM**, then type `G=N`. The equals symbol is in **2nd** **MATH** while `G` is typed with **ALPHA** **TAN**. This line of code repeats all of the code between itself and the **End** command until the guess (`G`) equals the number to guess (`N`).
- Type Prompt `G`:**  
**Prompt** can be found in the I/O tab of the **PRGM** menu: **PRGM** **▶**. This line asks the user for a value for `G`, and then stores it into `G`.
- Type If `G>N`:**  
**If** is in **PRGM**, and `>` is in **2nd** **MATH**. This line checks if `G>N`, and if it is, the calculator will run the following line. If `G=N` or `G<N`, it will skip the next line.
- Type Disp "TOO HIGH":**  
**Disp** is in **PRGM** **▶** (next to **Prompt**). To type "TOO HIGH", turn on alpha-lock by pressing **2nd** **ALPHA**. Now every key you type will act as if you pressed **ALPHA** first. The quotation mark is above the **+** key. This line displays TOO HIGH on the screen.
- Type If `G<N`:** See step 5 for instructions.  
**Type Disp "TOO LOW":** See step 6 for instructions.  
**Type End:** Find it in **PRGM**.
- Run your program!** Quit with **2nd** **MODE**, press **PRGM**, find your program, and press **ENTER** twice to run it.