

SCS Runoff (TR-55) Program

This program will calculate the runoff based on the SCS runoff method laid out in TR-55. Curve numbers and precipitation data will need to be average and determined prior. This calculated runoff is determined by this equation:

SCS runoff curve number method

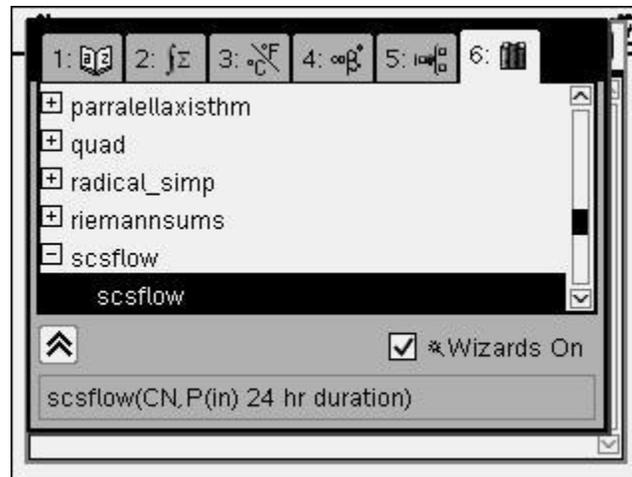
The SCS Runoff Curve Number (CN) method is described in detail in NEH-4 (SCS 1985). The SCS runoff equation is

$$Q = \frac{(P - I_a)^2}{(P - I_a) + S} \quad [\text{eq. 2-1}]$$

where

- Q = runoff (in)
- P = rainfall (in)
- S = potential maximum retention after runoff begins (in) and
- I_a = initial abstraction (in)

There is an assumed I_a coefficient that is used as suggested by TR-55, however there are other values suggested in a more developed area and this can be adjusted in the document. Comments mention this and this is easy to update if this is perceived as relevant. To access this program navigate to the public library and this is how it will appear:



The only required input is the curve number (CN) and the precipitation depth (P) which are explained in detail in TR-55. Make sure your curve number is averaged prior and you have the

correct precipitation data. TR-55 gives an example of how this is computed and these values will be demonstrated in the program as such:



This program will run the several applicable equations to give you the computed runoff.

Please may sure after downloading to place the ".tns" in the "MyLib" folder in the root directory of your calculator. Also please refresh you library by going to your calculator, selecting "6: Refresh Libraries". If you think I have made a mistake, please let me know.

Thank You

Brian