



Measuring Slope

Controlling storm water runoff depends largely upon how much, and in what direction, the ground slopes. Direction can be measured using a compass, but if you just want to know which way your runoff is going (for instance, toward or away from your house), turn on the hose and sprinkle the area until you can see where the water runs.

SUPPLIES

- Measuring tape or yardstick
String
- Line Level (costs about \$2,
see photo in STEP 2)
- Screwdriver
- Hammer
- Tall Stake (I used the
broken handle of a rake)



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STEP 1: Setup

Using the hammer, pound the stake firmly into the base of the slope. Make sure the stake is straight up and down. Tie the string to the shaft of the screwdriver and then push into the ground at the top of slope (Figure 1).



Figure 1: Set-up

STEP 2: Leveling



Figure 2: Leveling

Now that the string is anchored to the ground, pull the string tight between screwdriver and the stake. Use the level to make the string level. When the string is level, tie it to the stake.



Figure 3: Measuring

STEP 3: Measuring

Measure the height of the string at the stake by using a measuring tape or yard stick. Next measure the length of the string from the stake to the screwdriver.

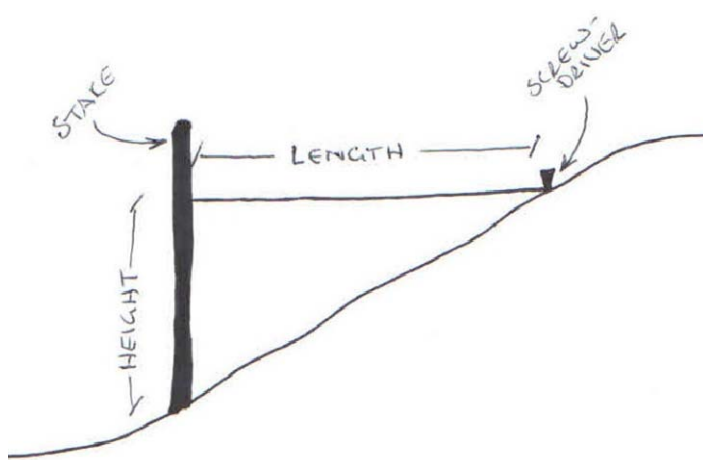


Figure 4: Set-up diagram with length and height marked

STEP 4: Calculation

Calculating slope is easy- it's the height of the stake to the string divided by the length of the string, multiplied by 100:

$$\frac{\text{Height}}{\text{Length}} \times 100 = \text{Slope\%}$$

Example:

Height=35 in.

String Length=105in

$$\frac{35}{105} \times 100 = 33\%$$