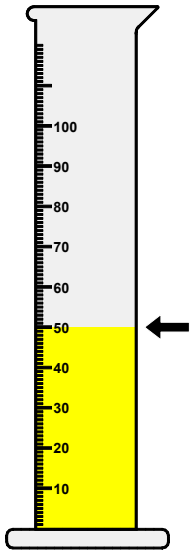
Six-Step Method to Determine Ethanol Percentage for E85

SAFETY NOTE: Wear chemical goggles and perform this test away from heat and sparks.

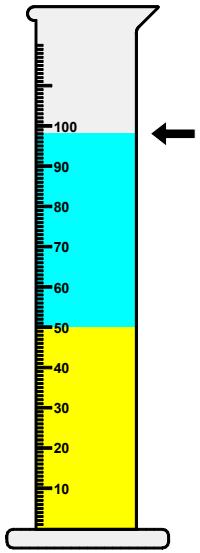
Step #1

Fill graduated cylinder with exactly 50 ml of fuel to be tested.



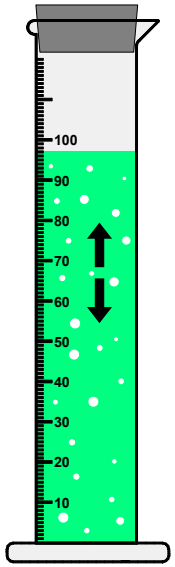
Step #2

Add 48 ml distilled water. As the water mixes, it will bond to the alcohol causing the level will fall a few ml.



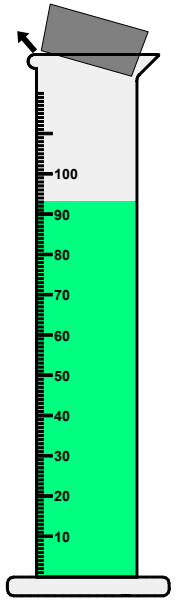
Step #3

Stopper and shake for about 15 seconds. The water and ethanol will mix, separate, and sink. **CAUTION:** Some pressure will build. Hold stopper in place.



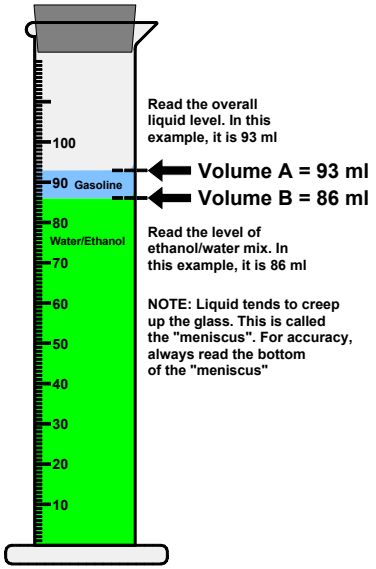
Step #4

Pull stopper out slightly to allow pressure buildup to escape. Reseal stopper and allow to stand for 15 min.



Step #5

Read the overall volume (A) at the top of the cylinder and the separation line volume (B). Apply the formulas to find the gasoline and ethanol percentages.



Step #6, Apply Formula:

Gasoline Percentage = 2.1 + 1.94 (Volume A - Volume B)
2.1 + 1.94 (93 - 86)
2.1 + 1.94 (7)
2.1 + 13.58
Gasoline Percentage = 15.68%

To find the Ethanol Percentage, subtract the Gasoline Percentage (15.68) from 100

Ethanol Percentage = 100 - 15.68 = 84.32% or approx. **E84**