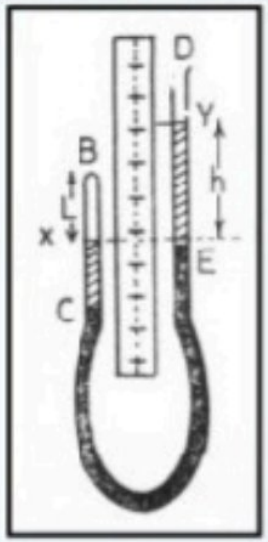
The adjacent figure shows a sketch of Boyle's law apparatus similar to the one that was used in the lab. If the atmospheric pressure Pa = 760 mm.Hg, and knowing that the length of the gas column L = 5.7 cm and the height of mercury h = 11.4 cm, then the pressure (in mm.Hg) of the entrapped gas in the closed left-hand-side tube is:



- a. 862.0
- b. 770.2
- c. 980.0
- d. 874.0
- e. 784.5

Clear my choice

11 $P = p_a + h$

$P = 760\ mmHg + 114\ mmHg$

$= 874\ mmHg$

Time left 0:02:46

Question 20

Not yet answered

Marked out of 2.50

Flag question

One mole of entrapped (محصور) ideal gas has a temperature of 35 Degrees Celsius. If the temperature is held constant and the pressure is doubled ($P_f = 3P_i$), the ratio (V_f/V_i) is:

- a. 1/2
- b. 3/2
- c. 1/6
- d. 2
- e. 1/3

Clear my choice

[2] $P_1 V_1 = P_2 V_2$

$P_1 V_1 = 3P_1 V_2$

$$\frac{V_2}{V_1} = \frac{1}{3}$$