Assignment 1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment. Due on 2019-02-13, 23:59 IST.

1) No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
2) The Boyle temperature is the temperature at which the (real) gas behaves ideally
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   when the pressure is very low
3) For a gas obeying van der Waals equation of state, $T_c = 304.2 \text{ K}$ and $P_c = 72.8 \text{ atm}$, the constants $a$ (in atm.lit$^2$/mol$^2$) and $b$ (in lit/mol) are:
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   when the pressure is very low
No, the answer is incorrect.
Score: 0
Accepted Answers:

2.96 Å

No, the answer is incorrect.
Score: 0
Accepted Answers:

No, the answer is incorrect.
Score: 0
Accepted Answers:

No, the answer is incorrect.
Score: 0
Accepted Answers:

Assuming CO\(_2\) obeys van der Waals equation of state, the pressure (in atm) of 10 moles of CO\(_2\) (a =3.59 atm.lit\(^2\)/mol\(^2\), b = 0.0427 lit/mol) occupying a volume of 50 litre at 300 K is:

0.0482
0.482
4.82
48.2

No, the answer is incorrect.
Score: 0
Accepted Answers:

4.82

The critical temperature and pressure of N\(_2\) are: 125.97 K, 33.49 atm and those for H\(_2\) are: 33.2 K, 12.8 atm. The ratio of diameters of N\(_2\) and H\(_2\) molecules is:

1.33
1. A sample of hydrogen gas was found to have a pressure of 250 kPa when the temperature was 23°C. What can its pressure be expected to be when the temperature is 11°C?

- 100 kPa
- 110 kPa
- 240 kPa
- 130 kPa

No, the answer is incorrect.
Score: 0
Accepted Answers: 240 kPa