

107

Combined Gas Law Problems

Use the combined gas law to solve the following problems:

- If I initially have a gas of a pressure of 12 atm, a volume of 23 liters, and a temperature of 225 K, and then I raise the pressure to 14 atm and increase the temperature to 300 K, what is the new volume of the gas?

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

$$\frac{(12)(23)}{225} = \frac{(14)V_2}{300}$$

$$1.47 = 0.0467 V_2$$

$$\frac{1.47}{0.0467} = \frac{0.0467 V_2}{0.0467}$$

$$V_2 = 31.47 \text{ L}$$
- If gas takes up a volume of 17 liters, has a pressure of 1.5 atm, and a temperature of 285 K. If I raise the temperature to 310 K and lower the pressure to 1.1 atm, what is the new volume of the gas?

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

$$\frac{(1.5)(17)}{285} = \frac{(1.1)V_2}{310}$$

$$0.1793 = 0.00355 V_2$$

$$\frac{0.1793}{0.00355} = \frac{0.00355 V_2}{0.00355}$$

$$V_2 = 50.79 \text{ L}$$
- If gas that has a volume of 20 liters, a temperature of 45 °C, and an unknown pressure has its volume increased to 26 liters and its temperature decreased to 15 °C. If I measure the pressure after the change to be 2.0 atm, what was the original pressure of the gas?

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

$$\frac{P_1(20)}{318} = \frac{(2.0)(26)}{273}$$

$$0.0063 P_1 = 0.1909$$

$$\frac{0.0063 P_1}{0.0063} = \frac{0.1909}{0.0063}$$

$$P_1 = 31.1 \text{ atm}$$
- If gas has a temperature of 15 °C and a volume of 1.1 liters. If the temperature is raised to 25 °C and the pressure is not changed, what is the new volume of the gas?

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

$$\frac{(1)(1.1)}{273} = \frac{(1)V_2}{298}$$

$$0.00399 = \frac{V_2}{298}$$

$$\frac{0.00399}{0.00399} = \frac{V_2}{0.00399}$$

$$V_2 = 1.17 \text{ L}$$

Click here to access this Book :

[**FREE DOWNLOAD**](#)

Combined Gas Law Problems Answer Key

[Combined Gas Law Problems Answer](#)

This is also one of the factors in getting the software documents from this [Combined Gas Law Problems Answer Key](#) online. You might not need more epoch to spend to go to the book introduction as well as research for them. In some cases you do not uncover the publication Combined Gas Law Problems Answer Key you are looking for. It will be very wasting time.

However below, considering you visit this web page, it will be therefore definitely simple to acquire as skillfully by downloading guide Combined Gas Law Problems

Answer Key

He will not to endure many times as we notify before. You can finish this even if decree something else at home and even at your workplace. therefore easily! So, are you question? Just exercise what we find the money to under like competently like review **Combined Gas Law Problems Answer Key** what you keeping in mind read!

[Nuclear Nuclear Proliferation And International Security In The 21st Century](#)
[International Security Readers](#), [Techniques Classic Bread Baking Judith](#), [Easy Reader Super 500](#), [Argument Readings Launchpad Readers](#), [Engineering Thermodynamics Binder Ready Version](#), [Christian Heritage Reader History Theology](#), [Literature Reading Purpose Course Grade](#), [Of Literature Third Course Holt Reading Solutions](#), [Reading](#)

[Serious Readers Bowker](#), [Hive 4 Mark Walden](#), [Reading Worksheet Answers](#), [Reading Writing Comm 170 Beyond](#), [10 Must Reads Ultimate Boxed Set 14 Books](#), [Spanish Reader Earl Stanley Harrison](#), [Yuedu Jiaocheng Chinese Reading Course Level 1 Book 1](#), [Philosophy Education Book Readings Brubacher](#), [Readers Level 3 New Girl In School Activity Book](#), [Math For College Readiness Answer Key](#), [Tea Read Paper Paul Allen](#), [Reading And Writing Research 4th Edition](#), [Creativity And Organization Text Cases And Readings](#), [D Reading 2 1 Answers](#), [Reading Reading Skills For Advanced Students](#), [Readers Level 4 City Girl Country Boy](#), [Blueprint Reading Taylor Winslow](#), [Chemical Engineering Spreadsheet Xls](#), [Science Reading And Writing Skill Activities Teacher Edition](#), [Language Learner Adapted Interactive Reader Answers](#), [Academic Skills 1 Reading Writing And Study Skills Teacher Amp](#), [Brown Edge Reading Writing Language Level](#), [Toefl Reading Intermediateibt For Korean Speakers](#)