example 1: a student produces 38.3 ml of O2 gas in a burette. The next day, there are 40.2 ml of gas in the burette and the pressure was 109 kpa. what was the initial pressure of the gas?

Given: V1 = 38.3 ml

V2 = 40.2 ml

P2 = 103 kpa

Solution: P1V1 = P2V2

P1(38.3) = 103 (40.2)

P1 = 108.11kpa

example 2: a 45.6 ml sample of gas at 490 torr is compressed to a certain volume at 3 atm

Given: V1 = 45.6 mml

P1 = 490 torr

P2 = 3 atm

*since torr and atm was given, convert one of them to torr or atm, units of measurements should all be the same.

Solution:

atm	**:**	**torr**
1	:	760
x	:	490

760x = 490

x = 0.644736842

x = 0.645

P1V1=P2V2

(.645) (45.6) = 3 V2

V2 = 9.804 ml