

## Unit 2 Worksheet 3 – PVTn Problems

On each of the problems below, start with the given P, V, T, or n; then make a decision as to how a change in P, V, T, or n will affect the starting quantity, and then multiply by the appropriate factor. Draw particle diagrams of the initial and final conditions.

1. What would be the new pressure if  $250\text{ cm}^3$  of gas at standard pressure is compressed to a volume of  $150\text{ cm}^3$ ? (n and T = constant)

	P	T	V	n
Initial				
Final				
Effect				

2. The pressure in a bicycle tire is 105 psi at  $25^\circ\text{C}$  in Fresno. You take the bicycle up to Huntington, where the temperature is  $-5^\circ\text{C}$ . What is the pressure in the tire? (V and n = constant)

	P	T	V	n
Initial				
Final				
Effect				

3. A sample of gas occupies 150 mL at  $25^\circ\text{C}$ . What is its volume when the temperature is increased to  $50^\circ\text{C}$ ? (P and n = constant)

	P	T	V	n
Initial				
Final				
Effect				

# Practice Pvtn Problems

**Minjie Lin**



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