PHYSLETS ANSWER SHEET **TS1A5**

Thermodynamics / Set 1 / Animation 5

Name _____ Class _____

<Show all work on calculations. Include proper units. Explanations require complete sentences.>

1) When the animation begins both sides have 20 particles. When the barrier moves to the right what happens to the Volume, Average Speed, Temperature, and Pressure? (Increase, Decrease, or Remains the same)

   Volume _____Avg. Speed _____

   Temperature _____ Pressure _____

2) Set the number of particles on the right to 1 (pause and change 20 to 1 then click set twice) When the barrier moves right the speed of the particle increases. Why does the speed increase? (Hint: look at the moving barrier and the collision)

3) When the barrier moves left the speed of the particle decreases. Why does the speed decrease? (Hint: look at the moving barrier and the collision)

4) Set the Temperature on the left to 1000. Why does the barrier stay over to the right side of the screen?

5) Set the Temperature on the left to 50 and the Number of particles on the right to 40. When the barrier is near the middle which side has the greatest average speed, greatest temperature, and greatest internal energy? (right or left)

Greatest: Avg Speed _____ Temp _____ Internal Energy _____