

CHAPTER 7	Spirograph and Respiratory Disorders Answer Key	BLM 7.3.4A
ANSWER KEY		

Patient	Tidal Volume (mL)	Vital capacity (mL)	Respiratory rate of patients at rest (breaths/min)
1 (normal)	500	5 000`	18
2	500	4 000	20
3	400	3 000	38
4	550	5 000	17
5	550	6 000	17

1. Tidal volume is the volume of air normally inhaled and exhaled in a breath, while vital capacity is the total volume of gas that can be moved into and out of the lungs (TV + IRV + ERV).
2. Patient #5 is likely a long distance runner because this patient shows increased vital capacity and low respiration rate. This is an efficient breathing system.
3. Patient # 3 is likely suffering from emphysema. The low tidal volume, low vital capacity, and high resting respiratory rate all indicate stress in the respiratory system.