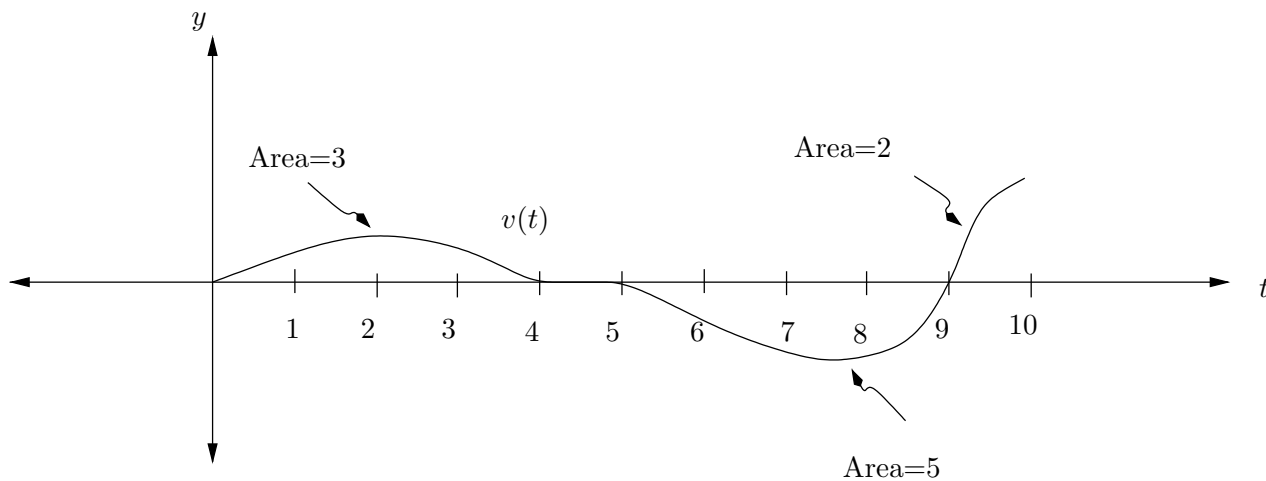


8. (3+3+3 points) Finally in your tropical paradise, you are strolling through the rain forest when you come upon a hummingbird. He is flitting up and down a vine of flowers. The graph below gives the bird's **vertical** velocity (ft/sec) as a function of time (sec). Positive velocity indicates he is going up, and negative velocity indicates down.



(a) At which time(s) is the hummingbird likely hovering at a flower? Explain how you arrived at your answer.

(b) At which time during the 10-second period is the hummingbird highest off the ground? Explain how you arrived at your answer.

(c) At which time(s) is the hummingbird's vertical acceleration the greatest? Explain how you arrived at your answer.