Quiz #9

Directions: Carefully read each question below and answer to the best of your ability in the space provided. You **MUST** show your work to receive full credit! Your answer to problem # 2 should be written in a clear and concise manner using a combination of complete sentences and symbolic expressions. An answer without explanation or that is poorly presented may not receive full credit.

1. (1 point) The indefinite integral (i.e. general antiderivative) of $e^x + x$ is given by:

     A. $e^x + x^2$

     B. $e^x + x^2 + C$

     C. $e^x + \frac{x^2}{2}$

     D. $e^x + \frac{x^2}{2} + C$

     E. None of the above

2. (2 points) The speed of a runner increased steadily the first three seconds of a race. Her speed at half-second intervals is given in the table. Find lower and upper estimates for the distance that she traveled during these three second.

t (sec)	0	0.5	1.0	1.5	2.0	2.5	3.0
v (ft/sec)	0	6.2	10.8	14.9	18.1	19.4	20.2

Solution:
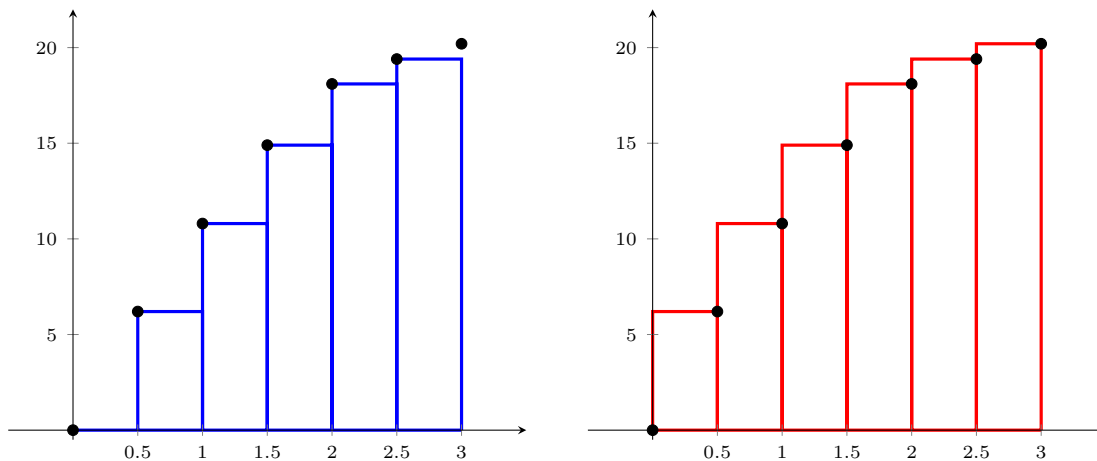
$$L_6 = 0.5 \cdot (0 + 6.2 + 10.8 + 14.9 + 18.1 + 19.4) = 34.7 \text{ ft}$$
$$R_6 = 0.5 \cdot (6.2 + 10.8 + 14.9 + 18.1 + 19.4 + 20.2) = 44.8 \text{ ft}$$

Name: _____

Question:	1	2	Total
Points:	1	2	3
Score:			