

Math 152

Show Your Work!
Good Luck!

January 10, 2011
Quiz #1 C

Name _____
(please print)

1. The table shows some values of $y=f(x)$.

x	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
f(x)	3	4	3	2	1	0	1	2	3	2	1

(a) Use the partition $P=\{ 3.0, 4.0, 4.5, 5.0\}$
and $c_k =$ right endpoints to evaluate

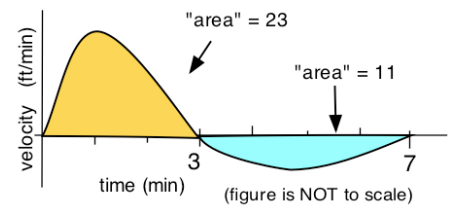
$$\sum_{k=1}^3 f(c_k) \cdot \Delta x_k = \underline{\hspace{2cm}} \quad (3)$$

(b) The MESH of this partition is: mesh = $\underline{\hspace{2cm}}$ (1)

(c) If the units of x are “days” and the units of y are “dogs”
then the units of the Riemann sum in part (a) are $\underline{\hspace{2cm}}$ (1)

2. An object starts at the origin ($x=0$) and moves along the x -axis
with the velocity shown in the graph.

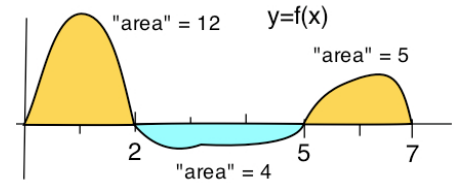
- (1) (a) When is it moving fastest? $\underline{\hspace{2cm}}$
- (1) (b) When is it farthest from the origin? $\underline{\hspace{2cm}}$
- (1) (c) Where is the object when $t=7$? $\underline{\hspace{2cm}}$
- (1) (d) What was the total distance moved by the object? $\underline{\hspace{2cm}}$
- (1) (e) When $t=2$ the object is moving LEFT RIGHT NEITHER



3. Use the given graph of f to evaluate these integrals (1 point each)

(a) $\int_0^{10} f(x) dx = \underline{\hspace{2cm}}$ (b) $\int_0^5 |f(x)| dx = \underline{\hspace{2cm}}$

(c) $\int_0^2 3f(x) dx = \underline{\hspace{2cm}}$ (d) $\int_0^5 1 + f(x) dx = \underline{\hspace{2cm}}$



4. Think “area” to evaluate these integrals: (2 points each)

(a) $\int_0^8 5-x dx = \underline{\hspace{2cm}}$ (b) $\int_0^8 |5-x| dx = \underline{\hspace{2cm}}$ (c) $\int_{1.3}^{3.4} \text{INT}(x) dx = \underline{\hspace{2cm}}$

5. **Define:** $\int_a^b f(x) dx = \lim_{\text{mesh} \rightarrow 0} \left\{ \underline{\hspace{2cm}} \right\}$ (1)