Math 152

Show Your Work! September 29, 2008 Name _____
Good Luck! Quiz #1 A (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 = {2.0, 3.0, 3.5, 4.0}
and c_i =(left endpoint) to calculate the

(3) value of $\sum_{i=1}^{3} f(c_i)\Delta x_i$ = _____ (a number)

(1) (b) For the partition P in part (a), MESH = _____

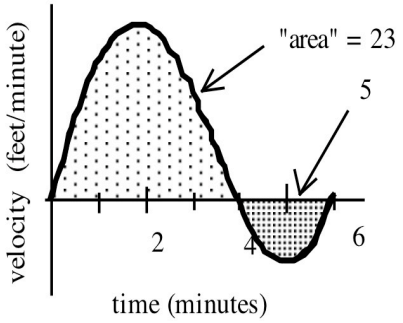
(c) If the unit for x are "degrees" and the units for f(x) are "days"

(1) then the units for your answer in part(a) are _____

2. A = $\int_0^{\pi} \sin(x)\ dx$ and B = $\int_0^{\pi} \cos(x)\ dx$. Which is larger? **A** **B** **Same** (circle one)

(1)

3. The graph shows your forward walking velocity after leaving home.



(1) (a) When were you moving fastest? t = _____

(2) (b) When were you farthest from home? t = _____

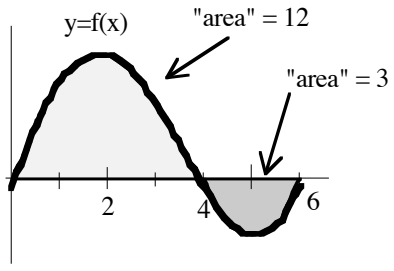
(2) (c) When t = 6, how far were you from home? _____

(2) (d) What total distance did you walk during the 6 minutes? _____

4. Each answer should be a number. (One point each)

(a) $\int_{-4}^{4} \sqrt{16 - x^2}\ dx$ = _____ (b) $\int_{-1}^{2} 2 - x\ dx$ = _____

5. See Figure at right. (One point each)



(a) $\int_0^4 2f(x)\ dx$ = _____ (b) $\int_4^6 5 + f(x)\ dx$ = _____

(c) $\int_0^6 |f(x)|\ dx$ = _____

6. Calculate these derivatives. (One point each)

D(e^{7x}) = _____ D($\sin(x^2 + 3)$) = _____ D($\ln(x^3 - x)$) = _____