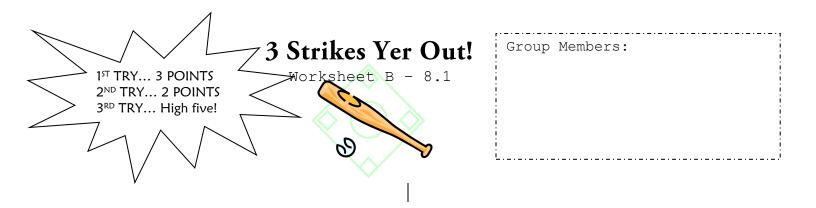


- 1. The velocity of a particle moving along the x-axis in cm/sec is given by  $v(t) = 3t t^2$  on the interval  $0 \le t \le 4$ . (No Calculator)
- a) Find the displacement of the particle at t = 4 sec.

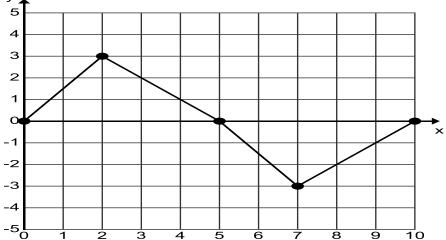
b) Find the total distance traveled from t = 0 sec. to t = 4 sec.

c) Find the final position of the particle at t = 4 sec if s(0) = 3cm.

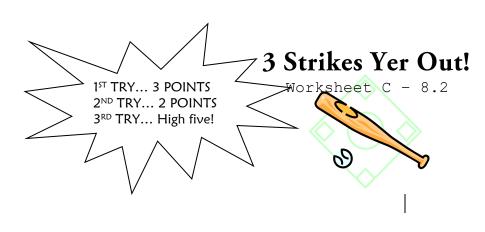


1. The rate at which water is pumped out of a pumping station is given by  $r(t) = 5.01 + 1.02^t$  in millions of gallons per month from Jan. 1<sup>st</sup>, 2000. How much total water has been pumped out of the station on April 1<sup>st</sup>, 2000? (Calculator OK)

2. Given the graph of the velocity of a dog moving back and forth on a rope in a yard (that is connected to his leash) where the velocity is measured in ft/sec. (No Calc.)

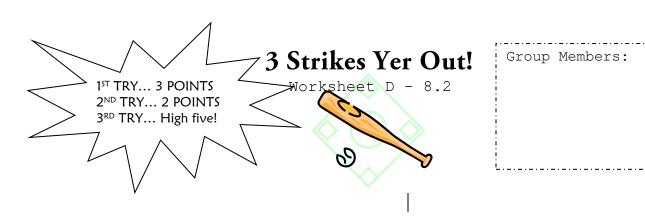


- a) What is the displacement of the dog in the 10 seconds?
- b) What is the total distance traveled by the dog in the 10 seconds?
- c) What is the dog's acceleration at t = 3 seconds? (Give correct units.)



1. Find the area between the graphs of y = x and  $y = x^3$ . (No Calculator)

2. Find the area between the graphs of x-2y=3 and  $x-y^2=0$ . (No Calculator)



1. Find the area bounded by the y-axis, the parabola  $y = x^2$ , and the graph of  $y = \cos x$ . (Calculator OK)

2. Find the area bounded by y = x + 3 and  $y = e^x - 1$ .

Names:		

Worksheet	1st Attempt – 3 points	2 <sup>nd</sup> Attempt – 2 points	3 <sup>rd</sup> Attempt – HIGH FIVE!
A			
В			
С			
D			
Total Points			

## 3 Strikes Yer Out Rules

- 1) Each worksheet has 2-4 problems. After you are done, bring up the one you finished for grading.
- 2) You must work together so that each group member is at the same pace.

\*\*Note: Hitchhiking is illegal in Calculus!!\*\*

- 3) When your **whole group** is finished with the worksheet, one person should bring **ALL** worksheets to check with me. Bring your **score sheet** with you!!
- 4) Scoring:
  - If your group gets **ALL** problems correct the first time, you will receive 3 points (to be written on the score sheet).
  - Otherwise, you will have to take your sheet, go back, and correct them...on the second time, you will receive 2 points.
  - ....on the third time...it's a HIGH FIVE FOR YOU!!

## Good Luck!!