#### Information

- Practice Test 4 counts as an online quiz.
- The **Practice Final Exam** counts as TWO online quizzes.
- Anyone making 95% or above on the Final Exam will receive an A in this class.
- Anyone making at least 70% on the **Final Exam** will pass this class.
- Test 4, the Final Exam, Quiz 14, Practice Test 4 and the Practice

Final Exam constitute over 1/2 of your grade in this class. Everyone can still make a good grade!

**Today:** Several Popper Questions will be given that can be used to replace an EMCF and an Online Quiz.

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1. Give the area bounded between the graphs of y=x and  $y=x^2$ .

#### You Have Come a Long Way!

**EMCF**s - 42 Poppers - 36

Online Quizzes - 14

Practice Tests (counting as online quizzes) - 4

Practice Final Exam (counting as 2 online quizzes) - 1

Quizzes in lab/workshop - 14

Homework assignments - 12

Tests - 4 Final Exam - 1

Not everyone can do this, but you can!

Total Items - 128

Finish Strong!!

#### Popper P36

2. Give the area bounded between the graphs of y = 4x and  $y = x^3$ .

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3. Give the average value of the function  $f(x) = x^2 - 4x$  on the interval [-1,3].

#### Popper P36

4. Give the volume generated when the region bounded between y = x and  $y = x^2$  is rotated around the y-axis.

## Popper P36

5. Give the volume generated when the region bounded between y=x and  $y=x^2$  is rotated around the x-axis.

## Popper P36

6. Give the upper Riemann sum associated with the function f(x) = 1 - |x| on the interval [-1,1] with respect to the partition  $P = \{-1, -1/2, -1/4, 1/4, 1/2, 1\}$ .

# Popper P36

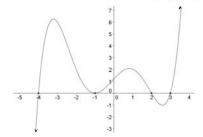
7. Give the lower Riemann sum associated with the function f(x) = 1 - |x| on the interval [-1,1] with respect to the partition  $P = \{-1, -1/2, -1/4, 1/4, 1/2, 1\}$ .

#### Popper P36

8.  $f(x) = \frac{d}{dx} \int_{-2x}^{3x} \cos(t^2 + 1) dt$ . f'(1) =

# Popper P36

9. The graph of f is shown below.  $\int_{-4}^{-1} f(x)dx = 9.5, \int_{-4}^{2} f(x)dx = 13, \int_{-1}^{3} f(x)dx = 2.75.$  Give the area bounded between the x- axis and the graph of f.



# Popper P36

10. The graph of the derivative of f is shown below. Give the largest value of x where f has a local maximum.

