

Wednesday, March 8

- ✦ ONLINE HW QUESTIONS
- ✦ FINISH CALCULATOR PROBLEMS FROM YESTERDAY (WHITE SHEET)
- ✦ MC AP PROBLEMS - IN GROUPS
- ✦ GO OVER SOLUTIONS!

Algebra and calculus don't mix

$$1 = \frac{d^3}{d^3} = \frac{d^2}{d} \frac{d}{d^2} = \frac{d^2 d}{dd^2}$$

$$\frac{d^2 d}{dd^2} = \frac{d}{dd} \left(\frac{dd}{dd} \right) = \frac{d}{dd} (1) = 0$$

$$\boxed{1 = 0}$$

CML #3 - Extra Credit - 7:10 am Tomorrow!

Quiz 8.1 - 8.2 Friday!!

8.2 HW Due Friday 8:00 am!!!

(12)

$$y^2 - 3x = 4$$

$$x - y = 2$$

$$y = x - 2$$

$$y^2 = 3x + 4$$

$$y = \pm \sqrt{3x + 4}$$

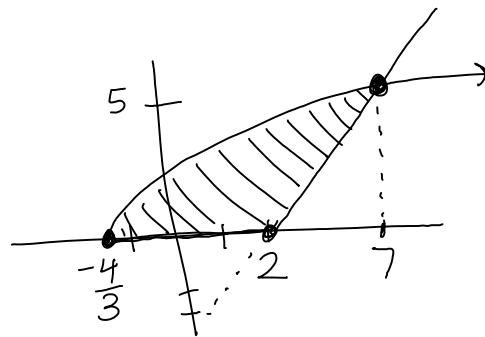
$$3x + 4 = 0$$

$$x = -\frac{4}{3}$$

$$A = \int_{-\frac{4}{3}}^7 \sqrt{3x+4} dx - \text{Area of } \Delta$$

$$- \frac{1}{2}(5)(5)$$

$$\frac{1}{3} \cdot \frac{2}{3} (3x+4)^{\frac{3}{2}}$$



$$\sqrt{3x+4} = (x-2)^2$$

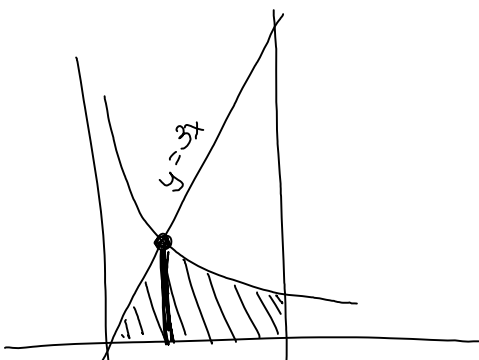
$$3x+4 = x^2 - 4x + 4$$

$$0 = x^2 - 7x$$

$$0 = x(x-7)$$

$$0 = x, \quad x = 7$$

(14) 1st Quad:



$$y = 3x$$

$$x = 4$$

$$y = \frac{3}{x^2}$$

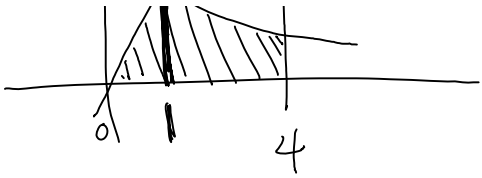
and x-axis

Int. Pt

$$3x = \frac{3}{x^2}$$

$$A = \text{Area of } \Delta + \int_1^4 \frac{3}{x^2} dx$$

$$\frac{1}{2}(1)(3)$$



Int. to

$$3x = \frac{3}{x^2}$$

$$3x^3 = 3$$

$$x^3 = 1$$

$$x = 1$$

A = Area of \triangle

$$\frac{1}{2}(1)(3)$$

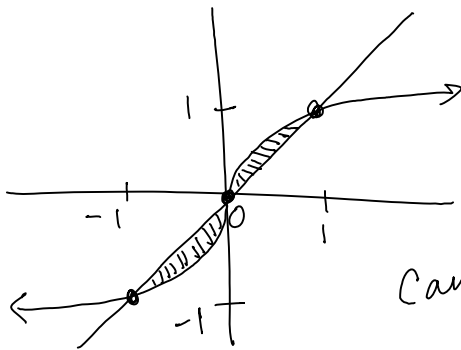
13

area of propeller-shaped region

$$x - y = 0 \quad y = x$$

$$x - y^3 = 0$$

$$x = y^3$$



$$y = y^3$$

$$y^3 - y = 0$$

$$y(y^2 - 1) = 0$$

$$y = 0, 1, -1$$

Can do in x-dir or y-dir.

$$A = 2 \int_0^1 (y - y^3) dy$$