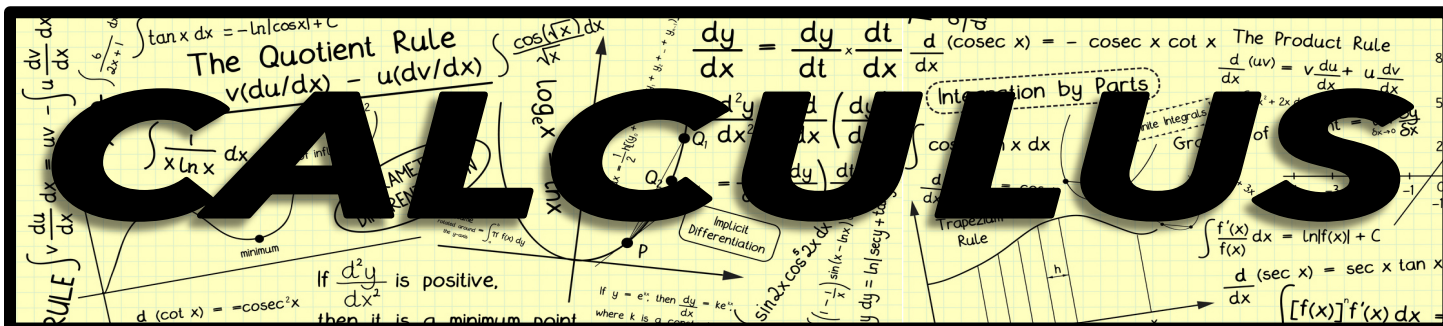




**Tuesday, Feb. 11**

**Math Matters Due**

Handout p. 332 33, 35 CAS (Evaluate both with CAS)

Sec. 6.2 p. 417 (Evaluate at least 4 by hand)

a-d below, 5, 7, 11, 12

(a)  $f(x) = x\sqrt{1-x^2}$  [0,1] (b)  $f(x) = 3|x+2|-3$  [-4,-1]

(c)  $f(x) = -2|x-3|+6$  [1,7] (d) Area between  $y = 4x$  &  $y = x^2$

**Thursday, Feb. 13**

(Evaluate at least 4 by hand)

Sec. 6.2 pp. 417-418 Set up only: 26, 27, 30

Find the area of the regions bounded by the given curves.

(a)  $y^2 = -x$ ,  $y = x-6$ ,  $y = -1$ ,  $y = 4$  (b)  $x = -y$ ,  $x = 2-y^2$

(c)  $y = x$ ,  $y = \frac{1}{x^2}$ ,  $y = 4$  (d)  $x = \frac{1}{y}$ ,  $x = 0$ ,  $y = 1$ ,  $y = e$

(e)  $y = x$ ,  $y = 4x$ ,  $y = -x+2$  (f)  $x = y^2-4$ ,  $y = \sqrt[3]{x+8}$ ,  $y = -1$

(g)  $x = y^3 - y$ ,  $x = 0$

**Tuesday, Feb. 18**

(Evaluate at least 4 by hand)

Start Tile Project

Sec. 6.3 pp. 431-433 28, 31, 36-38, 62, a-d

About x-axis:

(a)  $y = \sqrt{25-x^2}$ ,  $y = 3$  (b)  $y = -x+9$ ,  $y = x^2+3$ ,  $y = \sqrt{9-x}$

About y-axis:

(c)  $x = y^2$ ,  $x = y+2$  (d)  $x = 1-y^2$ ,  $x = 2+y^2$ ,  $y = -1$ ,  $y = 1$

**Thursday, Feb. 20**

Handout p. 345

22-24, 31 (Evaluate at least 1 by hand)

Book Sec. 6.3 p. 430 7-9

Volume by Slicing Handout  
39-43

Evaluate at least 4  
by hand

**Monday, Feb. 24**

Sec. 6.4 pp. 442-444

6, 20, a, b, c

(Evaluate at  
least 4 by  
hand.)

Handout pp. 348-349

6, 8, 10, 12

about y-axis:

(a)  $y = 2x-1$ ,  $y = -2x+3$ ,  $x = 2$  (b)  $y = e^{x^2}$ ,  $x = 1$ ,  $x = \sqrt{3}$ ,  $y = 0$

about x-axis:

(c)  $xy = 4$ ,  $x + y = 5$

Start Volume Project

**Wednesday, Feb. 26**

Sec. 6.5 p. 450

17-25 odd

(Evaluate  
all using  
CAS.)

Sec. 6.6 p. 457

7, 17, 18, 27, 28

Finish Volume Project

**Tile Project  
Due**

**Friday, Feb. 28**

Review Area & Volume

Start Final Projects

**Journal  
Due**

**Tuesday, Mar. 4**

**Area & Volume Test**

**Volume Project Due Friday**

## AREA & VOLUME ANSWERS

### Sec. 6.2 p. 417

a)  $\frac{1}{3}$  units<sup>2</sup>      b)  $\frac{9}{2}$  units<sup>2</sup>

c) 18 units<sup>2</sup>      d)  $\frac{32}{3}$  units<sup>2</sup>

12.  $\frac{125}{6}$  units<sup>2</sup>

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26.  $\int_0^1 ((y^3 - 4y^2 + 3y) - (y^2 - y)) dy +$   
 $\int_1^4 ((y^2 - y) - (y^3 - 4y^2 + 3y)) dy = \frac{71}{6}$  units<sup>2</sup>

30. a)  $\int_0^1 (\sqrt{x} - x^3) dx$     b)  $\int_0^1 (\sqrt[3]{y} - y^2) dy$

a)  $\frac{355}{6}$  units<sup>2</sup>

b)  $\frac{9}{2}$  units<sup>2</sup>

c)  $\frac{11}{2}$  units<sup>2</sup>

d) 1 units<sup>2</sup>

e)  $\frac{3}{5}$  units<sup>2</sup>

f)  $\frac{45}{4}$  units<sup>2</sup>

g)  $\frac{1}{2}$  units<sup>2</sup>

### Sec. 6.3 p. 431-433

28.  $\frac{\pi}{3}$  units<sup>3</sup>

36.  $\frac{\pi(e^4 - 1)}{2}$  units<sup>3</sup>

38.  $\frac{128\pi}{5}$  units<sup>3</sup>

62.  $136\pi$  units<sup>3</sup>

a)  $\frac{256\pi}{3}$  units<sup>3</sup>

b)  $\frac{122\pi}{5} + 90\pi = \frac{572\pi}{5}$  units<sup>3</sup>

c)  $\frac{72\pi}{5}$  units<sup>3</sup>

d)  $10\pi$  units<sup>3</sup>

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### Sec. 6.3 (continued)

8.  $\frac{4}{3}$  units<sup>3</sup>

### Sec. 6.4 pp. 442-444

6.  $45\pi$  units<sup>3</sup>

20.  $8\pi$  units<sup>3</sup>

a.  $\frac{20\pi}{3}$  units<sup>3</sup>

b.  $\pi(e^3 - e)$  units<sup>3</sup>

c.  $9\pi$  units<sup>3</sup>

### Sec. 6.6 p. 457

18.  $\frac{8\pi}{3}(5\sqrt{5} - 2\sqrt{2})$  units<sup>2</sup>

28.  $\approx 3.845$  units<sup>2</sup>