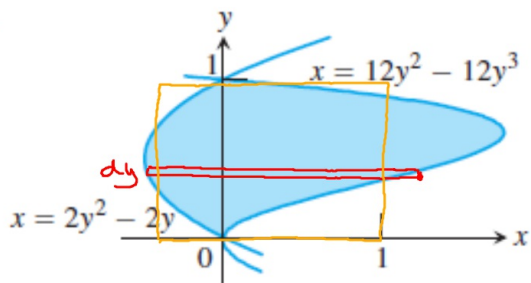


p. 386 even #18 (a) 5 (b) 7 m.  
 #20 (a) -2.5 (b) 19.5 m.

4.

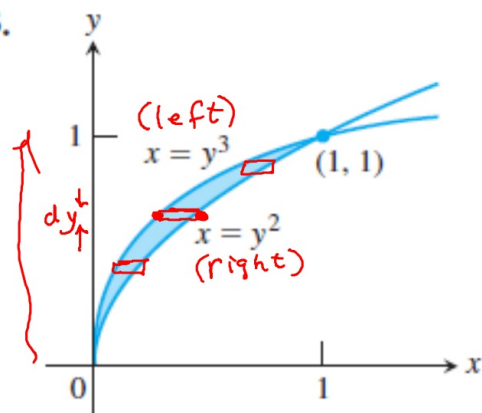


$$\int_0^1 [12y^2 - 12y^3 - (2y^2 - 2y)] dy$$

$$\int_0^1 (10y^2 - 12y^3 + 2y) dy$$

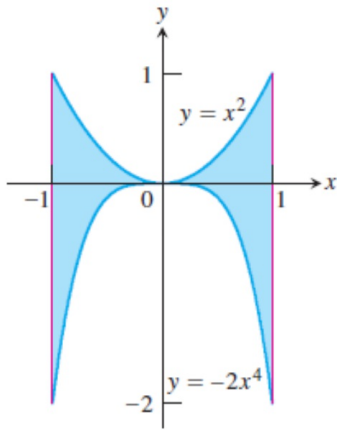
$$= \frac{10y^3}{3} - \frac{3y^4}{1} + \frac{2y^2}{2} \Big|_0^1 = \frac{10}{3} - \frac{9}{3} + \frac{3}{3} = \frac{4}{3}$$

3.



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

6.

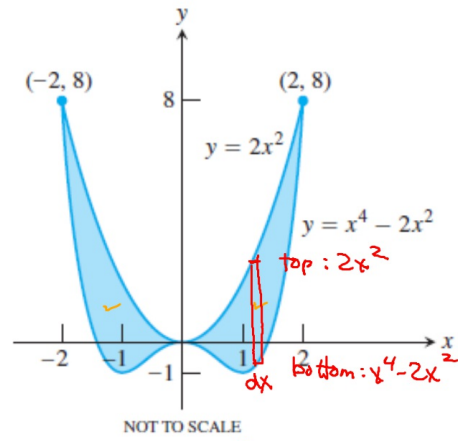


$$2 \int_0^2 (4x^2 - x^4) dx$$

$$2 \left( \frac{4x^3}{3} - \frac{x^5}{5} \right) \Big|_0^2 = 2 \cdot \left( \frac{32}{3} - \frac{32}{5} \right)$$

$$= 2 \cdot \left( \frac{160}{15} - \frac{96}{15} \right) = 2 \cdot \frac{64}{15} = \frac{128}{15}$$

5.

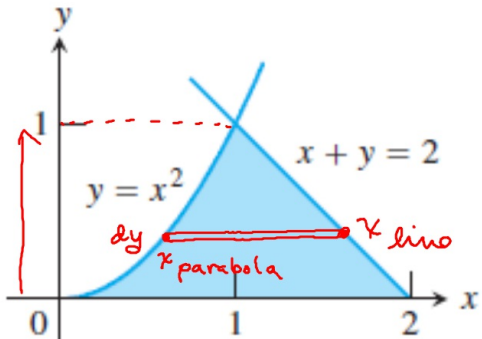


dumb way  $\int_{-2}^2 [2x^2 - (x^4 - 2x^2)] dx$

smart way  $2 \int_0^2 [2x^2 - (x^4 - 2x^2)] dx$



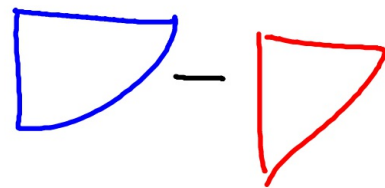
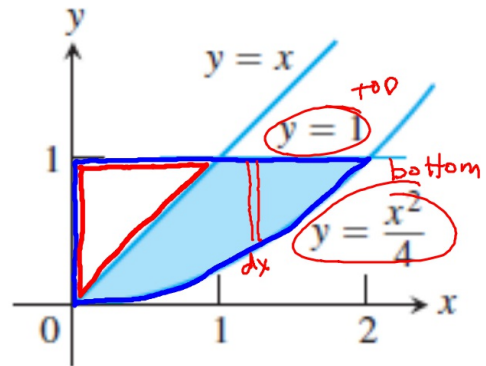
10.



$$x = \sqrt{y} \quad x = 2 - y$$

$$\int_0^1 (2 - y - y^{1/2}) dy$$

9.



p. 373 40.  $\frac{dy}{dx} = \frac{5}{x-y}$

