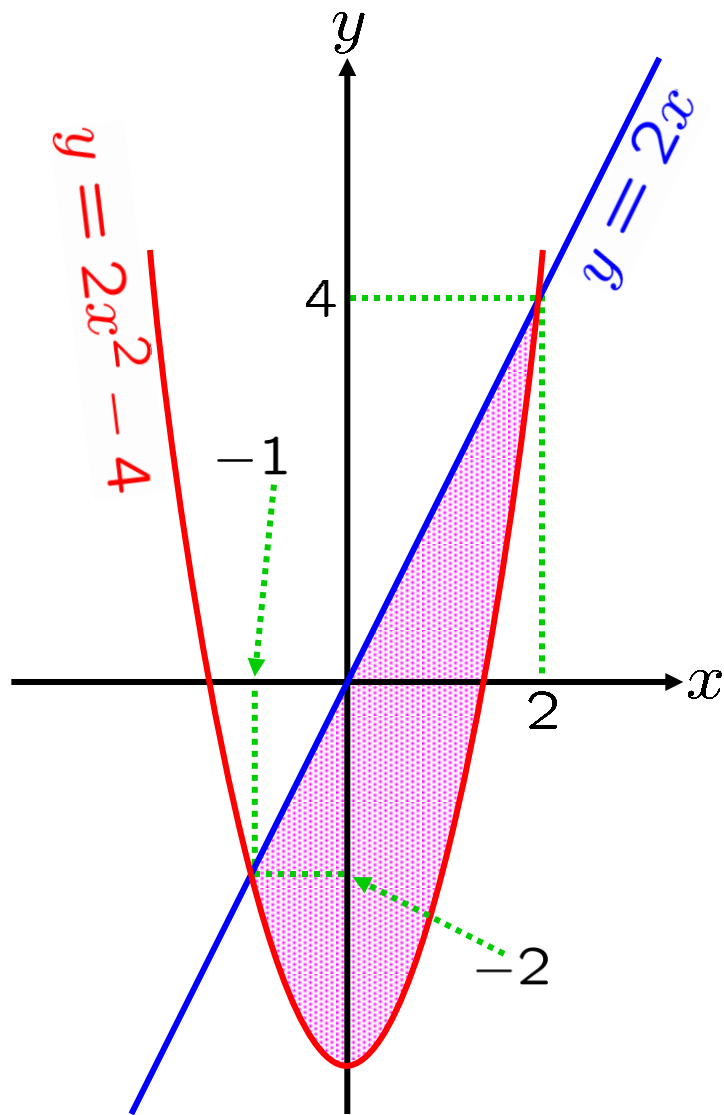


CALCULUS  
Area between curves:  
Problems  
NEW

0690-1. Compute the shaded area shown in the picture below.

NEW



- NEW** 0690-2. Let  $R$  be the region enclosed inside  
 $y = e^{-x}$ ,  $y = x^2$ ,  $x = -0.5$  and  $x = 0.5$ .
- Sketch the region  $R$ .
  - Compute the area of the region  $R$ .

- NEW** 0690-3. Let  $R$  be the region enclosed inside  
 $y = 2 \sin(\pi x/6)$ ,  $y = x$  and  $x \geq 0$ .
- Sketch the region  $R$ .
  - Compute the area of the region  $R$ .

- NEW** 0690-4. Let  $R$  be the region enclosed inside  
 $y = x^2$  and  $y = 2x + 8$ .
- Sketch the region  $R$ .
  - Compute the area of the region  $R$ .

0690-5. Let  $f(x) = e^{-x^2/10}$  and let  $g(x) = -x$ .  
Estimate the area of the region bounded by  
 $y = f(x)$ ,  $y = g(x)$ ,  $x = 2$  and  $x = 8$   
by computing  $R_3S_2^8(f - g)$ .