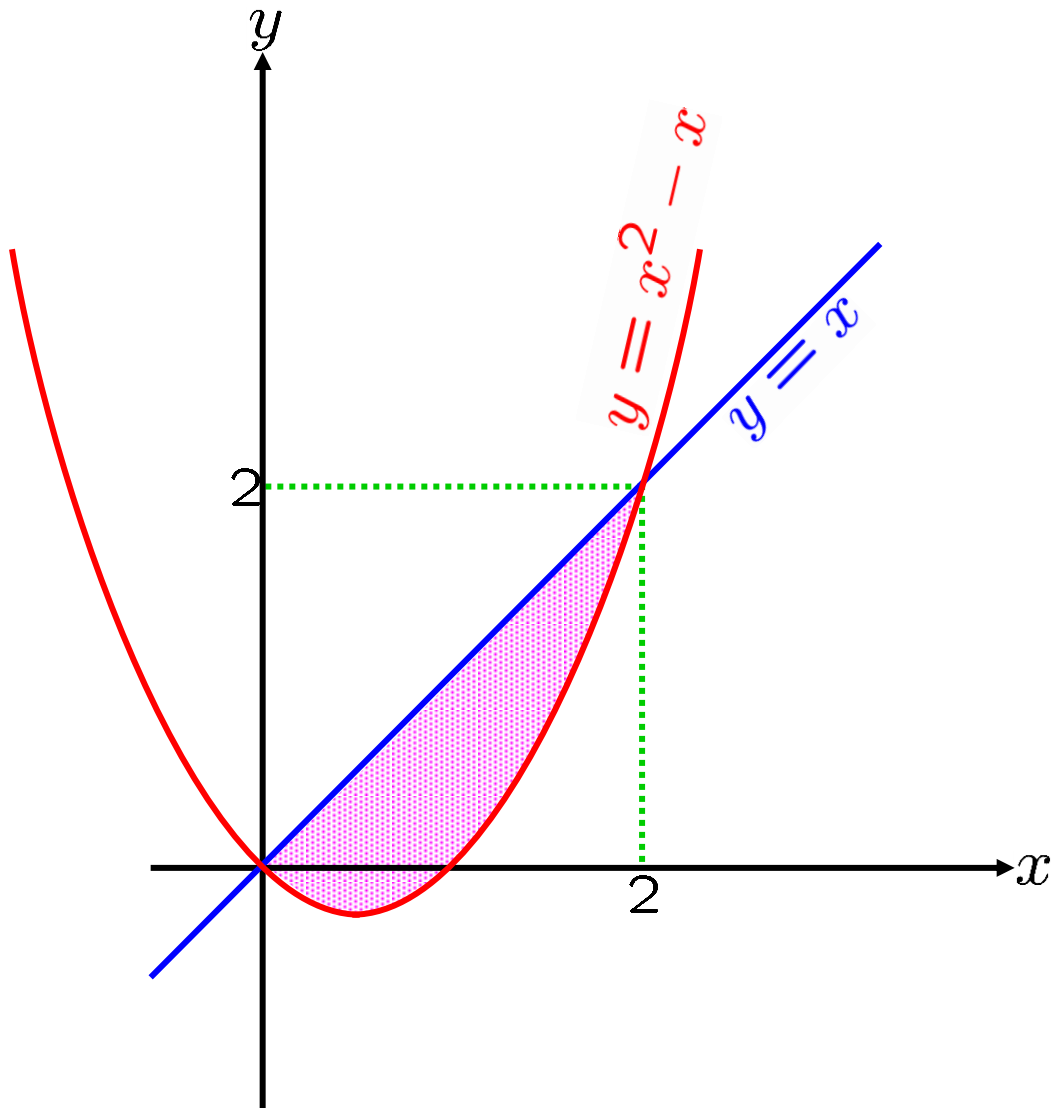


CALCULUS  
Area between curves:  
Problems  
NEW

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

NEW



**NEW** 0690-2. Let  $R$  be the region enclosed inside  
 $y = e^{-x}$ ,  $y = -x$ ,  $x = -0.5$  and  $x = 0.25$ .

a. Sketch the region  $R$ .

b. Compute the area of the region  $R$ .

**NEW** 0690-3. Let  $R$  be the region enclosed inside  
 $y = \sqrt{3} \tan(\pi x/3)$ ,  $y = 3x$  and  $0 \leq x \leq 1$ .

a. Sketch the region  $R$ .

b. Compute the area of the region  $R$ .

**NEW** 0690-4. Let  $R$  be the region enclosed inside  
 $y = 6x^2$  and  $y = 9x - 3$ .

a. Sketch the region  $R$ .

b. Compute the area of the region  $R$ .

0690-5. Let  $f(x) = e^{-x^2/35}$  and let  $g(x) = -x$ .  
NEW Estimate the area of the region bounded by  
 $y = f(x)$ ,  $y = g(x)$ ,  $x = 4$  and  $x = 7$   
by computing  $L_3S_4^7(f - g)$ .