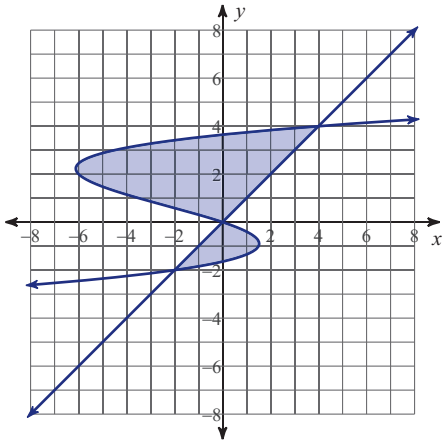
Calculus Name_____ ID: 1

Assignment

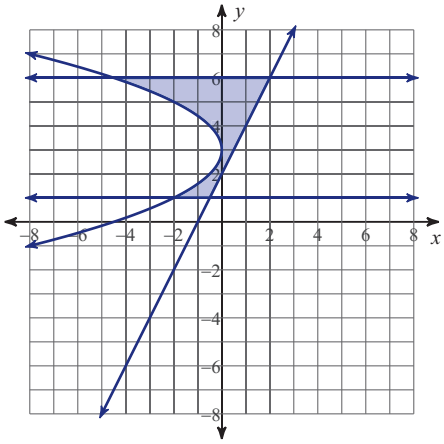
Date_____ Period____

For each problem, find the area of the region enclosed by the curves. Set up, but do not evaluate the integral.

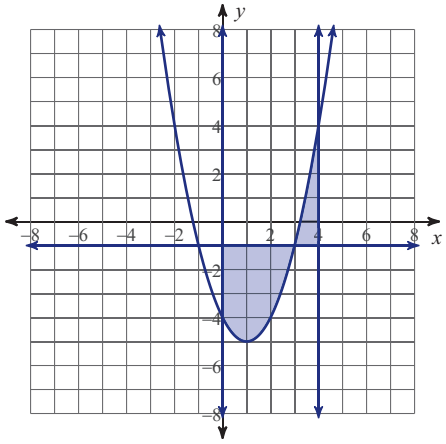
1) $x = \frac{y^3}{2} - y^2 - 3y,\ x = y$



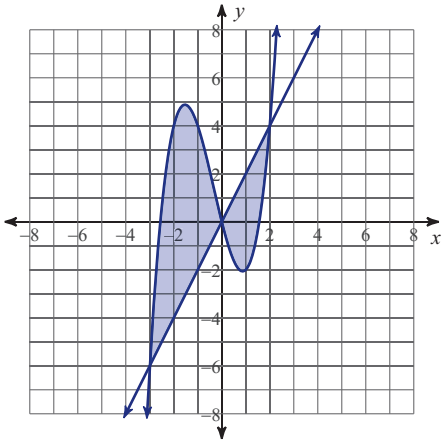
2) $x = -\frac{y^2}{2} + 3y - \frac{9}{2},\ x = \frac{y}{2} - 1,$
$y = 1,\ y = 6$



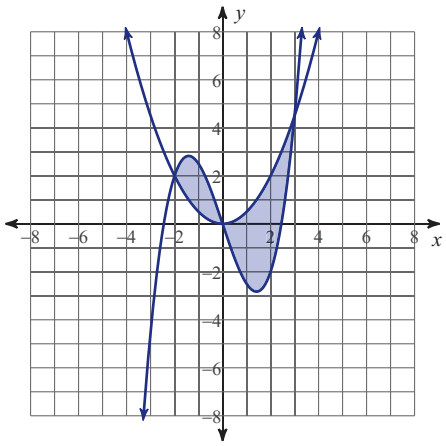
3) $y = x^2 - 2x - 4,\ y = -1,$
$x = 0,\ x = 4$



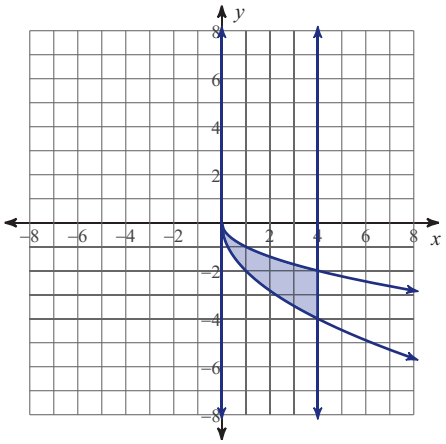
4) $y = x^3 + x^2 - 4x,\ y = 2x$



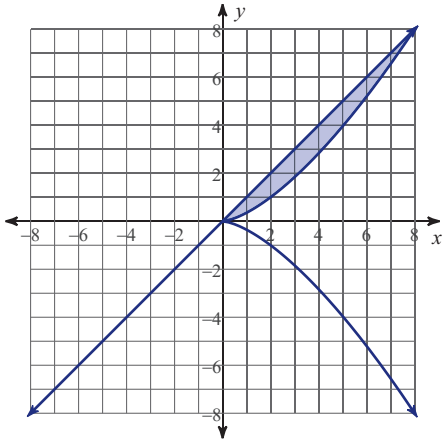
5) $y = \frac{x^3}{2} - 3x,\ y = \frac{x^2}{2}$



6) $y = -\sqrt{x},\ y = -2\sqrt{x},$
$x = 0,\ x = 4$



7) $x = 2\sqrt[3]{y^2},\ x = y$



8) $y = x^2 - 4x + 5,\ y = -x - 2,$
$x = 1,\ x = 4$