Worksheet

For each problem construct an integral which solves the given problem.

Area

1. Find the area of the bounded region bounded between the curves $y = x^2 - 2x$, $y = 6 - x$

2. Find the area of the region bounded between the curves $y = x^2 - 2x$, $y = x$ between $x = 0$ and $x = 4$.

3. Find the area of the bounded region bounded by the curves $y = 2x + 5$, $y = 13 - 3x$, $y = x^2 - 2x - 7$

4. Find the area of the bounded region in the first quadrant bounded between the curve $x = -2\frac{y - 9}{y + 3}$ and the $x$-axis and the $y$-axis.

5. Find the area of the bounded region in the first quadrant bounded between the curves $y = \sqrt{x}$, $y = x - 6$, $x$-axis using vertical strips.

6. Find the area of the bounded region in the first quadrant bounded between the curves $y = \sqrt{x}$, $y = x - 6$, $x$-axis using horizontal strips.

7. Find the area of the bounded region bounded between the curves $y = x - 1$, $y^2 = 2x + 6$ using vertical strips.

8. Find the area of the bounded region bounded between the curves $y = x - 1$, $y^2 = 2x + 6$ using horizontal strips.