

Area of a Bounded Region WS

Directions: Find the area of the region, R , bounded by the given curves.

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

2) $y = 5 - x$, $x = 4$, x -axis and y -axis

3) $y = x^2 - 4x - 5$, $y = 2x - 5$, $x = -2$ and $x = 2$

4) $y = x^3$, x -axis, $x = -1$ and $x = 2$

5) Find the area between $f(x)$ and the x -axis on [from $x = -\pi$ to $x = 2$ given that

$$f(x) = \begin{cases} \sin 2x, & x \leq 0 \\ 3x, & x > 0 \end{cases}$$

#6, 7, 8 - To be assigned later