

SATPREP

Assignment :Area Between Two Curves

Sketch the region bounded by the graphs of the functions and find the area of the region.

1. $f(x) = x^2 - 4x$, $g(x) = 0$

2. $f(x) = x^2 + 2x + 1$, $g(x) = x + 1$

3. $y = 2x$, $y = 4 - 2x$, $y = 0$

4. $f(x) = x^2 - x$, $g(x) = 2(x + 2)$

5. $y = x^3 - 2x + 1$, $y = -2x$, $x = 1$

6. $y = \sqrt{3x + 1}$, $g(x) = x + 1$

7. $y = x^2 - 4x + 3$, $y = 3 + 4x - x^2$

8. $f(y) = y^2$, $g(y) = y + 2$

9. $x = y^2 + 2$, $x = 0$, $y = -1$, $y = 2$

10. $y = \frac{4}{x}$, $y = x$, $x = 1$, $x = 4$

Answers:

1. $\frac{32}{3}$

2. $\frac{1}{6}$

3. 2

4. $\frac{125}{6}$

5. 2

6. $\frac{3}{2}$

7. $\frac{64}{3}$

8. $\frac{9}{2}$

9. 9

10. $\frac{9}{2}$

