

HW 7.1

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

18. $y = -\frac{3}{8}x(x-8)$, $y = 10 - \frac{1}{2}x$, $x = 2$, $x = 8$

21. $f(x) = x^2 + 2x + 1$, $g(x) = 3x + 3$

24. $y = \frac{1}{x^2}$, $y = 0$, $x = 1$, $x = 5$

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

30. $f(y) = \frac{y}{\sqrt{16-y^2}}$, $g(y) = 0$, $y = 3$

33. $f(x) = x(x^2 - 3x + 3)$, $g(x) = x^2$

36. $y = x^4 - 2x^2$, $y = 2x^2$

45. $f(x) = \cos x$, $g(x) = 2 - \cos x$, $0 \leq x \leq 2\pi$

48. $f(x) = 3^x$, $g(x) = 2x + 1$

51. $f(x) = \frac{1}{x^2}e^{1/x}$, $y = 0$, $1 \leq x \leq 3$