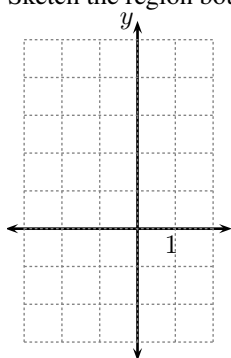


Calculus I

Homework

Definite integrals and areas between curves

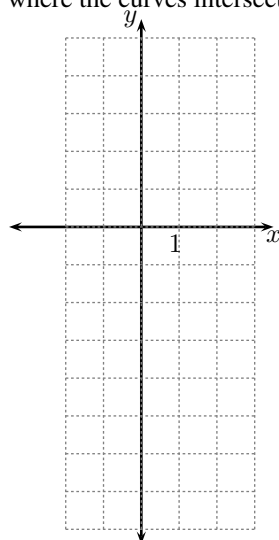
1. (a) Find the area of the region bounded by the curves $y = 2x^2$ and $y = 4 + x^2$.
- (b) Find the area of the region bounded by the curves $x = 4 - y^2$ and $y = 2 - x$.
- (c) Find the area of the region bounded by the curves $y = x^2$ and $y = 2x^2 + x - 2$.
- (d) • Sketch the region bounded by the curves $y = x^2$ and $y = 2x^2 + x - 2$.



- Find the area of the region.

(e)

- Sketch the region bounded by the curves $y = -x^2 + 2x - 1$ and $y = -2x^2 + 3x + 1$. Make sure to indicate the points where the curves intersect.



- Find the area of the region.