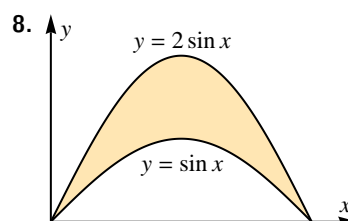
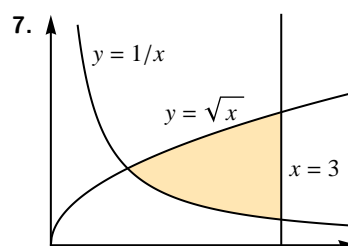
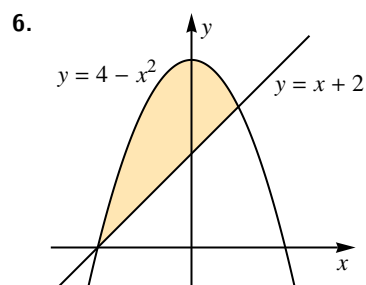
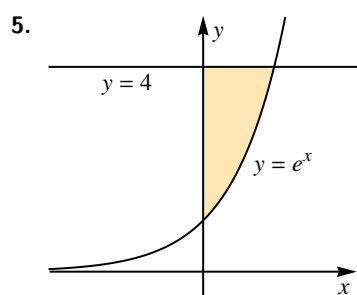
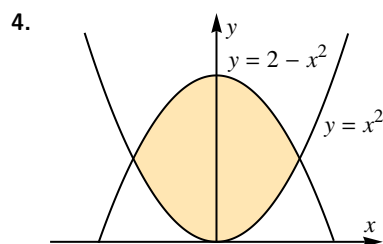
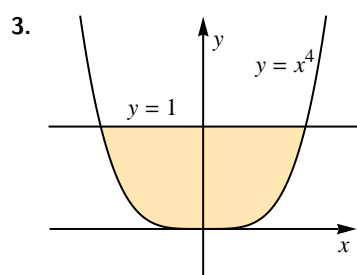
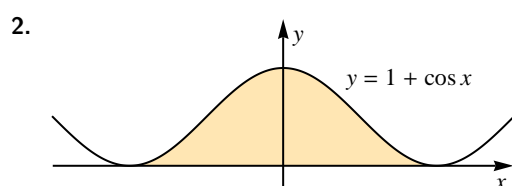
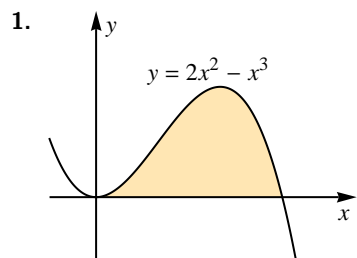
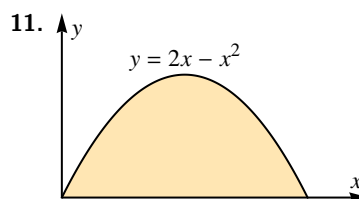
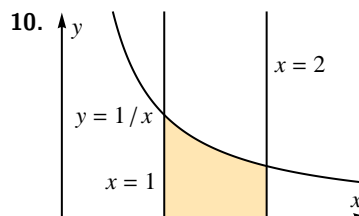
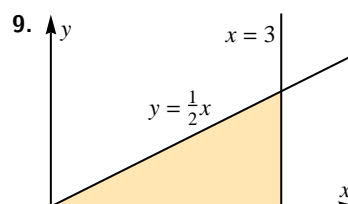


Exercises: Areas and Volumes

1–8 ■ Find the area of the shaded region.



9–11 ■ Find the volume of the solid obtained by rotating the shaded region around the x -axis.



Answers

1. $4/3$ 2. 2π 3. $8/5$ 4. $8/3$ 5. $4\ln 4 - 3 \approx 2.545$ 6. $9/2$ 7. $2\sqrt{3} - \ln 3 - \frac{2}{3} \approx 1.699$ 8. 2 9. $9\pi/4 \approx 7.069$
10. $\pi/2 \approx 1.571$ 11. $16\pi/15 \approx 3.351$