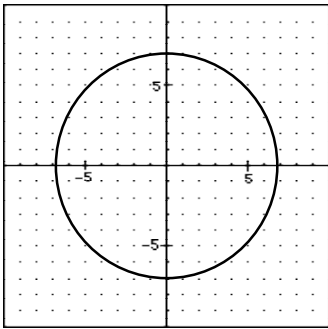


Problem Set 56 — Even Answers

2. $P(G \cup S) = \frac{9}{14}$

4. 100 tons

6. $x^2 + y^2 = 36$



8.

10. $f(g(x)) = |x - 4| + 2$

$(g \circ f)(x) = |x| - 2$

D: $\{x \in \mathfrak{R}\}$

R: $\{y \in \mathfrak{R} \mid y \geq 2\}$

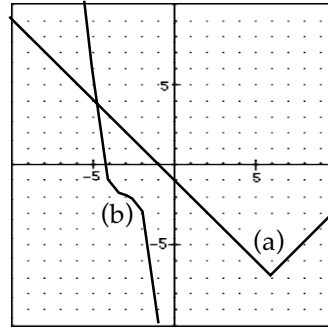
12. $\left(\frac{f}{h}\right)(x) = \frac{\sqrt{x+4}}{x+2}$

$\{x \in \mathfrak{R} \mid x \geq -4, x \neq -2\}$

$\left(\frac{f}{h}\right)(12) = \frac{2}{7}$

14. The graph is the same shape as its parent, $y = \sqrt[3]{x}$, but it is reflected across the x axis and is translated left 7 units and down 4 units.

18. $x = -1, \frac{4}{3}$



16.

20. $B = 66$

$k = \frac{7}{\cos 24^\circ} \approx 7.662$

$y = 7 \tan 24^\circ \approx 3.117$

22. 5×10^3

24. $100(5280)^2(12)^2 \text{ in}^2$
 $\approx 4.014 \times 10^{11} \text{ in}^2$

26. $\frac{a^2 + b}{a^2 + b + a}$

28a. $mx^{5/4}y^{5/4}$

b. $2^{7/6}$

30. $A = \left(\frac{3\sqrt{55}}{4} + 2\pi\right) \text{ in}^2 \approx 11.845 \text{ in}^2$

$V = \left(\frac{9\sqrt{55}}{2} + 12\pi\right) \text{ in}^3 \approx 71.072 \text{ in}^3$

$SA = \left(\frac{3\sqrt{55}}{2} + 42 + 16\pi\right) \text{ in}^2$
 $\approx 103.390 \text{ in}^2$