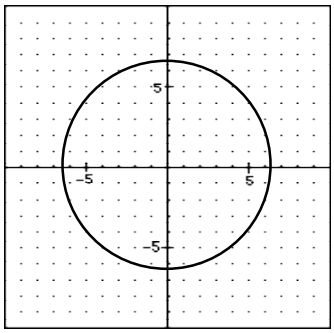
Problem Set 59 — Even Answers

2. 120 g

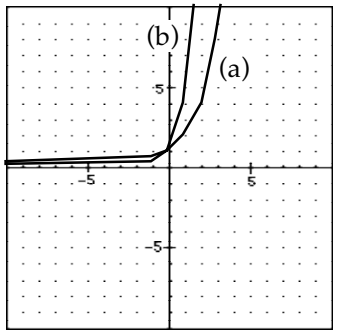
4. The conic is an origin centered circle with a radius of 6.5.



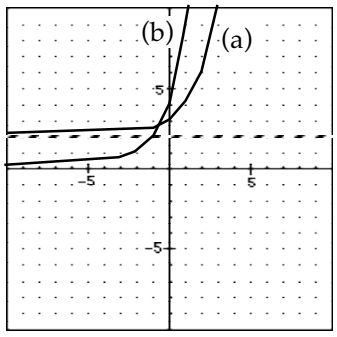
6. $x = -3, \frac{4}{3}$

8. $x = \frac{3}{2} \pm \frac{\sqrt{2}}{2}$
$\approx 0.793, 2.207$

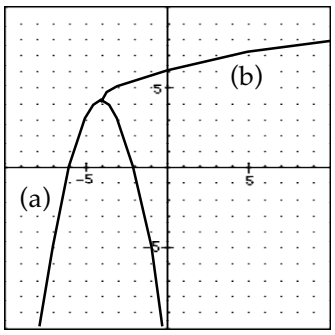
10.



12.



14.

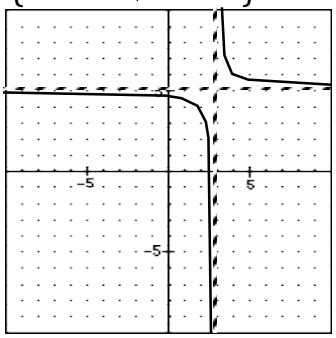


16a. f: $\{x \in \Re \mid x \neq 0\}$
g: $\{x \in \Re\}$

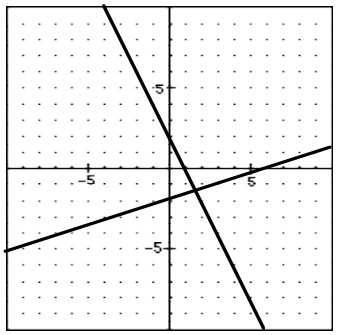
b. $(f \circ g)(x) = \frac{1}{x-3} + 5$

c. $\{x \in \Re \mid x \neq 3\}$

d.



18.



$\approx (1.8, -1.4)$

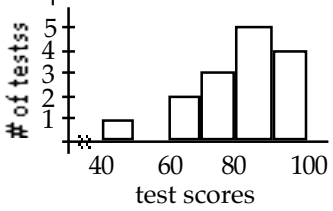
20. $\varnothing$

22a.

4	6
5	
6	5 8
7	3 5 9
8	1 2 5 5 7
9	1 3 5 8

4 | 6 = 46

b.



c. range = 52,
$\bar{x} = 80.2$
median = 82,
mode = 85

24. A = 20, B = 70,
$m = 40 \cos 20° \approx 37.588$
$n = 40 \sin 20° \approx 13.681$

26. $\frac{k + k^2 m}{m + km^2 + k^2}$

28. 2×10^{33}

30. $\frac{3x^2 + 7x}{(x+3)(x \pm 2)}$