

Problem Set 72 — Even Answers

2. $2 \times 10^1 \text{ N/m}^2$

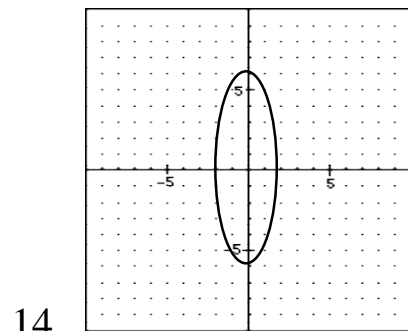
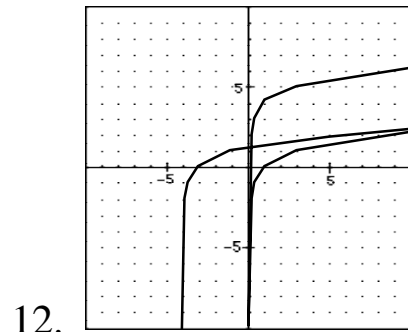
4. 10 small, 60 large

6. $x = -\frac{1}{3} \pm \frac{\sqrt{14}}{3} i$

8. 2 irrational solutions

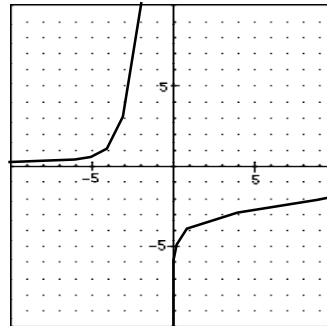
10a. $\log_5 \frac{1}{25} = -2$

b. $3^{-4} = \frac{1}{81}$



14. $Y_1 = \sqrt{36 - 9x^2}, Y_2 = -Y_1$

16. $g^{-1}(x) = \log_3 x - 4$



18. $x = \frac{ckmp}{m - acp}$

20. -10

22. $3 + 3i$

24a. $3^{\frac{5}{8}}$

b. $3^{\frac{29}{8}}$

26a. 16

b. 32

28. $(fg)(x) = 3x^5 - 4x^4 - 4x^3 + 5x^2 - 2$
 $(fg)(-2) = -110$

30. $x = -\frac{23}{4}$