

Problem Set 77 — Even Answers

2. 3×6

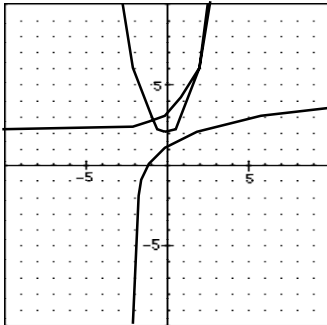
4. 49, 56, 63

6. $\approx 11.816i + 24.633j$
 $\approx 27.321 \angle 64.374^\circ$

8. $\approx 2.239i - 0.578j$
 $\approx 2.313 \angle 345.515^\circ$

10. $(x - 4)^2 + (y + 2)^2 = 16$
 $Y_1 = -2 + \sqrt{16 - (x - 4)^2}$
 $Y_2 = -2 - \sqrt{16 - (x - 4)^2}$
 $x \approx 0.536, 7.464$

- 12a. between -1 and -2 : -1.523
 b. between 1 and 2 : 1.900
 c. between 3 and 4 : 3.091



14.

16. $\frac{6}{x - 2}$

18. $\text{Mo} = -\frac{100}{13}\text{Zr} + 1384.615$

20. $-1.851, 1.351$ same

22. $-\frac{1}{2} - \frac{5}{2}i$

24. $95 + 48\sqrt{5}$

26. 295 ft/min
 5 m/sec and 18 km/hr are equal

28a. $w = x = 4\sqrt{2}$
 b. $y = 8, z = 4\sqrt{3}$

30. $m \angle AOC = 150^\circ$
 $m \angle OCA = 15^\circ$
 $m \angle OAC = 15^\circ$
 $A = \frac{3}{4}\pi \text{ cm}^2 \approx 2.356 \text{ cm}^2$