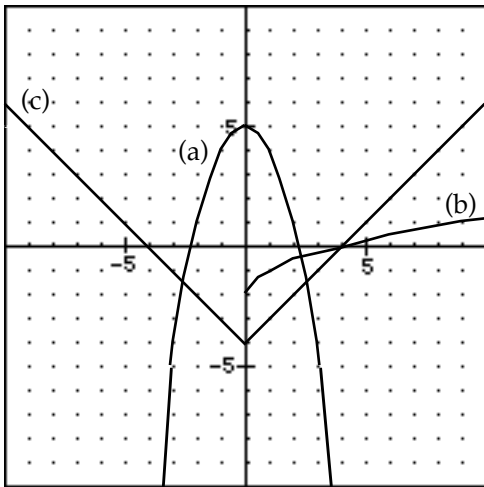


Problem Set 40 — Even Answers

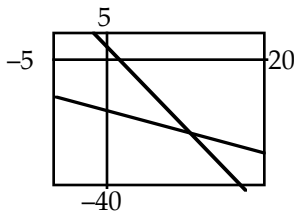
2. $R_R = 20$ mph, $T_R = 4$ hr
 $R_C = 5$ mph, $T_C = 6$ hr

4. 142,500

6. $x = 140$, $y = 20$, $z = 40$
 $L = \frac{4}{3}\pi$ cm ≈ 4.189 cm
 $A = 4\pi$ cm² ≈ 12.566 cm²



8.



10.

$(14.107, -29.544)$

12a. $m = 1$

b. $d = 7\sqrt{2} \approx 9.899$

c. $y = x + 5$

14. $LSA = 80$ in²

$$V = \frac{200}{\pi} \text{ in}^3 \approx 63.662 \text{ in}^3$$

16a. $P(5) = \frac{1}{9}$

b. $P(5, 5, 5) = \frac{1}{729}$

18. $x = -\frac{1}{3}, 0, 2$

20. $x = -2, -\frac{2}{3}$

22. $x = -\frac{7}{6}, \frac{7}{6}$

24. $4\sqrt{3} + 2\sqrt[3]{6} + 2\sqrt[4]{3}$

26. $\frac{\sqrt[3]{9}}{3}$

28. $\frac{a - 4b}{xy}$

30. -341