

Solutions of Questions from Old Exams

1 Section 9.1

1. 12
2. $\sqrt{5}$
3. $-\frac{1}{2}$
4. $\frac{9}{4}$
5. $\frac{5}{3}$
6. 80°
7. $a \neq -2$ and $a \neq 2$
8. 4
9. $\frac{1}{2}$
10. -1
11. $\{(1, 2, 3)\}$
12. $-\frac{2}{3}$
13. $\{(2, -5)\}$
14. $\{(\frac{-3}{2}, \frac{4}{3})\}$
15. $\{(x, 2x, 6 - 6x) \mid x \in R\}$
16. $\{(-1, 23, 16)\}$
17. $\frac{4}{5}$
18. $k_1 = -\frac{4}{3}$ and $k_2 = -\frac{15}{2}$
19. b
20. $\{(-1, 8)\}$
21. a
22. $a = 2$, $b = 0$, and $c = 1$.
23. b
24. $\{(\ln 2, -3)\}$

2 Section 9.3

1. $-2 < k < 2$
2. ± 2
3. ± 1
4. $\{(1, 1), (-1, -1), (\sqrt{3}, -\sqrt{3}), (-\sqrt{3}, \sqrt{3})\}$
5. e
6. $\frac{4}{5}$
7. $k > -9$
8. $\pm 5\sqrt{10}$
9. $\left\{\left(\frac{1}{3}, 2 \pm \frac{\sqrt{7}}{3}\right)\right\}$
10. b
11. No points of intersection
12. 6 Hours.
13. $\{(\sqrt{5}, 2), (\sqrt{5}, -2), (-\sqrt{5}, 2), (-\sqrt{5}, -2)\}$
14. $\{(2, \sqrt{3}), (2, -\sqrt{3}), (-1, 0)\}$