

Answers

Exercise Set 1

1. 8 2. 1/4 3. -1/8 4. 6 5. -4

Exercise Set 2

1 (a) $y = -5/12x + 169/12$

F1 x	F2 y1	F3 y2	F4 Del	F5 Pow	F6 Inv	F7 Pow
4.96	12.017	12.017				
4.97	12.013	12.012				
4.98	12.008	12.008				
4.99	12.004	12.004				
5.	12.	12.				
5.01	11.996	11.996				
5.02	11.992	11.992				
5.03	11.988	11.987				

x=5.
MAIN RAD AUTO FUNC

2. (a) $y = 3/4x - 25/4$

F1 x	F2 y1	F3 y2	F4 Del	F5 Pow	F6 Inv	F7 Pow
2.98	-4.015	-4.015				
2.99	-4.007	-4.008				
3.	-4.	-4.				
3.01	-3.992	-3.993				
3.02	-3.985	-3.985				

x=3.
MAIN RAD AUTO FUNC

3. (a) $y = -4/3x + 25/4$

F1 x	F2 y1	F3 y2	F4 Del	F5 Pow	F6 Inv	F7 Pow
3.96	3.0533	3.0526				
3.97	3.04	3.0396				
3.98	3.0267	3.0265				
3.99	3.0133	3.0133				
4.	3.	3.				
4.01	2.9867	2.9866				
4.02	2.9733	2.9731				
4.03	2.96	2.9596				

x=4.
MAIN RAD AUTO FUNC

4. (a) $y = 12/5x - 169/12$

F1 x	F2 y1	F3 y2	F4 Del	F5 Pow	F6 Inv	F7 Pow
11.96	-5.096	-5.095				
11.97	-5.072	-5.071				
11.98	-5.048	-5.048				
11.99	-5.024	-5.024				
12.	-5.	-5.				
12.01	-4.976	-4.976				
12.02	-4.952	-4.952				
12.03	-4.928	-4.927				

x=12.
MAIN RAD AUTO FUNC

Exercise Set 3

1. 1093/729 2. 364/729 3. 8190 4. -85/16 5. 8.0 6. $e(1 - e^{19})/(1 - e)$ 7. \$10,737,418.23 8. 95.026
 9. 5638.368 10. 13984.021 11. 155,282 12. 19.793 13. 16.667 14. 53.131 15. 94.281 16. 19.793 17.
 16.651
 19. 1/2 20. 9 21. 5/7 22. 1/3 23. 2/3 24. 1 25. 251/1650 26. 1741/9900 27. 1/3, 26/111 28. 180 ft. 30. n

Exercise Set 4

1. \$18,525.61 2. \$1043.10 3. \$4124.85 4. \$222.60 5. \$178.53 6. \$18140.18 7. \$6873.41 8. \$698.68
 9. \$316.64 10. \$7439.01 11. \$111.22 12. \$39.63 13. \$8054.63 14. \$1704.56

15

No.	Payment	Interest	Principal Repaid	Balance
0				\$350.00
1	\$50.00	\$17.50	\$32.50	\$317.50
2	\$50.00	\$15.88	\$34.13	\$283.38
3	\$50.00	\$14.17	\$35.83	\$247.54
4	\$50.00	\$12.38	\$37.62	\$209.92
5	\$50.00	\$10.50	\$39.50	\$170.42
6	\$50.00	\$8.52	\$41.48	\$128.94
7	\$50.00	\$6.45	\$43.55	\$85.38
8	\$50.00	\$4.27	\$45.73	\$39.65
9	\$41.64	\$1.98	\$39.65	\$0.00

Note: the last payment is the previous balance + interest.

16. (a) \$5,359.04

(b)

Payment		Principal		
No	Payment	Interest	Repaid	Balance
36				\$5,359.04
37	\$1,398.88	\$93.78	\$1,305.10	\$4,053.94
38	\$1,398.88	\$70.94	\$1,327.94	\$2,726.00
39	\$1,398.88	\$47.71	\$1,351.18	\$1,374.82
40	\$1,398.88	\$24.06	\$1,374.82	\$0.00

17. 21 full payments, \$7.50. 18. 16 full payments, \$66.82 19. 23.56% 20. 5.26% 21. (a) 6.03%, (b) \$254.42

22. It becomes $1/i$ 23. \$2,000 24. \$47,487.89