

Final Review Answers

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|------------------------------|----------------------------|------------------------|
| 1. a) -10 | b) 20 | |
| 2. -11/8 | | |
| 3. a) $-5x + 10$ | b) $-12x^3 + 30x$ | |
| 4. a) $2x - 8$ | b) $11x + 2y$ | |
| 5. a) $5x + 3$ | b) $-2x - 13$ | |
| 6. a) $6x^2 + 11x - 35$ | b) $15x^2 - 23x + 4$ | |
| 7. a) $16a^2 - 40ab + 25b^2$ | b) $x^2 - 6x + 9$ | |
| 8. a) $8x^5$ | b) $15a^6b^3$ | |
| | $\frac{7x^5}{8}$ | $\frac{3y^4}{5x^2}$ |
| 9. a) $4x^4$ | b) $\frac{7x^5}{8}$ | c) $\frac{3y^4}{5x^2}$ |
| 10. a) $27x^3$ | b) $4x^6$ | c) $16x^{12}$ |
| 11. a) $5x^3 - 8x^2 - x + y$ | b) $11x^3 - 2x^2 - 4$ | |
| 12. 0 | | |
| 13. 8/9 | | |
| 14. -2/7 | | |
| 15. 7 | | |
| 16. 2/3 | | |
| 17. -1/3 | | |
| 18. 5/4 | | |
| 19. $-z/b$ | | |
| | $\frac{y-b}{b+y}$ | |
| 20. a) m | b) c | |
| 21. a) -9 | b) 10 | |
| | $\frac{5(x+3)}{x(x+5)}$ | |
| 22. a) $\frac{2y+3x}{xy}$ | b) $\frac{5(x+3)}{x(x+5)}$ | |
| | $\frac{19x}{19x}$ | |
| 23. a) $\frac{x-3y}{6}$ | b) 20 | |
| 24. a) -5/12 | b) 2 | |
| 25. (6, 16) | | |
| 26. (6,4) | | |
| 27. a) $(2x + 1)(x + 7)$ | b) $(a - 3b)(a - 8b)$ | |
| 28. a) $(x - 12)(x + 2)$ | b) $(4x - 3)(3x + 5)$ | |
| 29. a | | |
| 30. b | | |
| 31. b | | |
| | $\frac{c-d}{2c}$ | |
| 32. $\frac{c-d}{2c}$ | | |
| | $\frac{5a}{a+2}$ | |
| 33. $\frac{5a}{a+2}$ | | |
| | $\frac{2x+1}{2x}$ | |
| 34. $\frac{2x+1}{2x}$ | | |

- $\frac{8x+10}{x(x+2)}$
 35. $x(x+2)$
 36. a) +7,-7 b) 4,5 c) -3,-5
 37. d
 38. $x \geq -8$
 39. a) $x < 1$ b) $x \leq -1$
 40. a) (-4,3) b) (4,-2)
 41. -5
 42. 4
 43. (0,-2), $\left(\frac{2}{3}, 0\right)$, $\left(\frac{1}{3}, 1\right)$, (2,4)
 44. (0,3), (4,0), $\left(3, \frac{3}{4}\right)$
 47a) $5\sqrt{6}$ b) $6\sqrt{3}$
 48a) $5\sqrt{2}$ b) $4\sqrt{7}$
 49a) $5a\sqrt{2}$ b) $15\sqrt{21}$
 50a) $30\sqrt{2}$ b) $36\sqrt{2}$
 52. 40ft.
 53. 78
 54. 38
 55. 12 in. , 25 in.
 56. 150 \$9 tickets, 250 \$7 tickets
 57. 15 \$20 bills, 10 \$12 bills
 58. 6