

Chapter 10 Test

Simplify. (10.1)

1. $\frac{-12y - 24}{12}$

2. $\frac{9x^6 + 3x^2}{15x^7 + 9x^4}$

3. $\frac{14a^3 + 21a}{7a - 28}$

Multiply. (10.2)

4. $\frac{5a}{8} \cdot \frac{a+4}{a-6}$

5. $\frac{x-5}{x-9} \cdot \frac{x+5}{x+9}$

6. $\frac{6a+4}{10} \cdot \frac{18}{a-2}$

Divide. (10.3)

7. $\frac{7a^5}{16} \div \frac{-5a}{8}$

9. $\frac{28x^9}{5} \div 14x^7$

11. $\frac{-21+7m}{30} \div \frac{-9+3m}{55}$

8. $\frac{5}{y^7} \div \frac{10}{y^9}$

10. $\frac{-4+8y}{22} \div \frac{y-5}{11}$

12. $\frac{x-2}{x+7} \div \frac{5x+10}{x+9}$

Divide. (10.4)

13. $\frac{48x^3 - 8x^2 + x}{x}$

14. $\frac{75x^2 + 45x + 10}{5x - 1}$

15. $\frac{98y^4 + 49y^3 - 14y}{7y}$

Add or subtract. (10.5)

16. $\frac{a^2 - 6a + 5}{a + 5} + \frac{a^2 - 9a + 4}{a + 5} - \frac{a^2 + 7a - 8}{a + 5}$

18. $\frac{x-7}{6x+1} - \frac{13x}{6x+1}$

17. $\frac{x+2}{3x+7} - \frac{x^2+9x-1}{3x+7}$

19. $\frac{9x+2}{x-8} + \frac{-5x+1}{x-8}$

Add or subtract. (10.6)

20. $\frac{y}{y^2-5} + \frac{12y}{y+5}$

22. $\frac{-16}{x-1} - \frac{44}{8x-8}$

24. $\frac{30r}{(r+7)^2} - \frac{50}{r+7}$

21. $\frac{24}{x^2-49} + \frac{20}{x+7}$

23. $\frac{-45}{3b+24} + \frac{40}{b+8}$

25. $\frac{-33}{(w-9)^2} - \frac{2}{w-9}$

Solve. (10.7)

26. $\frac{4}{3} + \frac{9}{7} = \frac{b}{21}$

28. $\frac{16}{5x} + \frac{6}{x} = 1$

30. $\frac{27}{5a} + \frac{15}{6} = \frac{4}{15}$

27. $\frac{6}{5} + \frac{5c}{10} = \frac{c}{20}$

29. $\frac{a}{4} + \frac{17a}{12} = \frac{5}{3}$

31. $\frac{25}{9y} + \frac{5}{9y} = \frac{1}{36}$

Simplify. (10.8)

32. $\frac{\frac{1}{4} + \frac{7}{3}}{\frac{8}{21}}$

33. $9 + \frac{\frac{40}{9}}{\frac{11}{12}}$

34. $\frac{\frac{54}{25} + \frac{44}{5}}{\frac{22}{75}}$

35. $\frac{\frac{x}{8} + \frac{2x}{4}}{\frac{5x}{12}}$