

Find the LCM of each set of polynomials.

1. $12c, 6c^2d$

2. $18a^3bc^2, 24b^2c^2$

3. $2x - 6, x - 3$

4. $5a, a - 1$

5. $t^2 - 25, t + 5$

6. $x^2 - 3x - 4, x + 1$

Simplify each expression.

7. $\frac{3}{x} + \frac{5}{y}$

8. $\frac{3}{8p^2q} + \frac{5}{4p^2q}$

9. $\frac{2c - 7}{3} + 4$

10. $\frac{2}{m^2n} + \frac{5}{n}$

11. $\frac{12}{5y^2} - \frac{2}{5yz}$

12. $\frac{7}{4gh} + \frac{3}{4h^2}$

13. $\frac{2}{a + 2} - \frac{3}{2a}$

14. $\frac{5}{3b + d} - \frac{2}{3bd}$

15. $\frac{3}{w - 3} - \frac{2}{w^2 - 9}$

16. $\frac{3t}{2 - x} + \frac{5}{x - 2}$

17. $\frac{m}{m - n} - \frac{m}{n - m}$

18. $\frac{4z}{z - 4} + \frac{z + 4}{z + 1}$

19. $\frac{1}{x^2 + 2x + 1} + \frac{x}{x + 1}$

20. $\frac{2x + 1}{x - 5} - \frac{4}{x^2 - 3x - 10}$

21. $\frac{n}{n - 3} + \frac{2n + 2}{n^2 - 2n - 3}$

22. $\frac{3}{y^2 + y - 12} - \frac{2}{y^2 + 6y + 8}$