

Dividing Polynomials - Key

In problems 1-4, divide and simplify

1. $3x^2 + 5x$	2. $\frac{x}{8} - \frac{1}{2} + \frac{1}{4x}$
3. $\frac{1}{xy^4} + \frac{2x}{y^2} - \frac{4y^2}{x^2}$	4. $8x - \frac{4}{x}$

In problems 5-13, divide using long division

5. $x + 9$	6. $3x + 2 + \frac{6}{x-1}$
7. $x - 4 + \frac{-12}{x-6}$	8. $x^2 + 4x - 1$
9. $x^2 - x - 6 + \frac{8}{x+1}$	10. $x^2 - 8x + 49 + \frac{-297}{x+6}$
11. $x + \frac{x+2}{x^2-1}$	12. $x - 1 + \frac{x-1}{x^2-x-1}$
13. $x + \frac{-x^3 - x + 2}{x^4 + 1}$	