

Exercises 1–6

Use the long division algorithm to determine the quotient. For each problem, check your work by using the reverse tabular method.

1.
$$\frac{x^2+6x+9}{x+3}$$

2.
$$\frac{7x^3-8x^2-13x+2}{7x-1}$$

3.
$$\frac{x^3-27}{x-3}$$

4.
$$\frac{2x^4+14x^3+x^2-21x-6}{2x^2-3}$$

5.
$$\frac{5x^4-6x^2+1}{x^2-1}$$

6.
$$\frac{x^6+4x^4-4x-1}{x^3-1}$$