

**Practice 12-5****Dividing Polynomials****Divide.**

1.  $\frac{10x - 25}{5}$
2.  $\frac{4x^3 - 3x}{x}$
3.  $(3x^2 - 6x) \div 3x$
4.  $(10x^2 - 6x) \div 2x$
5.  $(-8x^5 + 16x^4 - 24x^3 + 32x^2) \div 8x^2$
6.  $(15x^2 - 30x) \div 5x$
7.  $(x^2 - 14x + 49) \div (x - 7)$
8.  $(2x^2 - 13x + 21) \div (x - 3)$
9.  $(4x^2 - 16) \div (2x + 4)$
10.  $(x^2 + 4x - 12) \div (x - 2)$
11.  $(x^2 + 10x + 16) \div (x + 2)$
12.  $(12x^2 - 5x - 2) \div (3x - 2)$
13.  $(x^2 + 5x + 10) \div (x + 2)$
14.  $(x^2 - 8x - 9) \div (x - 3)$
15.  $(3x^2 - 2x - 13) \div (x - 2)$
16.  $(x^3 + 3x^2 + 5x + 3) \div (x + 1)$
17.  $(5 - 23x + 12x^2) \div (4x - 1)$
18.  $(24 + 6x^2 + 25x) \div (3x - 1)$
19.  $(2x^2 + 11x - 5) \div (x + 6)$
20.  $(x^2 + 5x - 10) \div (x + 2)$
21.  $(8x + 3 + 4x^2) \div (2x - 1)$
22.  $(3x^2 + 11x - 4) \div (3x - 1)$
23.  $(x^3 + x - x^2 - 1) \div (x - 1)$
24.  $(10 + 21x + 10x^2) \div (2x + 3)$
25.  $(6x^2 - 35x + 36) \div (3x - 4)$
26.  $(-2x^2 - 33x + x^3 - 7) \div (x - 7)$
27. The volume of a rectangular prism is  $15x^3 + 38x^2 - 23x - 6$ . The height of the prism is  $5x + 1$ , and the width of the prism is  $x + 3$ . Find the length of the prism.
28. The width of a rectangle is  $x + 1$ , and the area is  $x^3 + 2x^2 - 5x - 6$  cm. What is the length of the rectangle?