

**Practice 12-4****Dividing Polynomials**

Divide.

1.  $\frac{10x - 25}{5}$

2.  $\frac{4x^3 - 3x}{x}$

3.  $(-8x^5 + 16x^4 - 24x^3 + 32x^2) \div 8x$

4.  $(15x^2 - 30x) \div 5x$

5.  $(x^2 + 4x - 12) \div (x - 2)$

6.  $(4x^2 - 16) \div (2x + 4)$

7.  $(x^2 + 10x + 16) \div (x + 2)$

8.  $(12x^2 - 5x - 2) \div (3x - 2)$

9.  $(5 - 23x + 12x^2) \div (4x - 1)$

10.  $(24 + 6x^2 + 25x) \div (3x - 1)$

11.  $(2x^2 + 11x - 5) \div (x + 6)$

12.  $(x^2 + 5x - 10) \div (x + 2)$

13.  $(x^3 + x - x^2 - 1) \div (x - 1)$

14.  $(10 + 21x + 10x^2) \div (2x + 3)$

15.  $(6x^2 - 35x + 36) \div (3x - 4)$

16.  $(-2x^2 - 33x + x^3 - 7) \div (x - 7)$

17. 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?