# Lesson 4.4 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_

**Factor the polynomial completely.**

|  |  |
| --- | --- |
| 1. y3 – 2y2 – 24y | 1. 9p7 – 36p5 |
| 1. 2k4 – 242k2 | 1. x3 + 27 |

|  |  |
| --- | --- |
| 1. y3 + 1000 | 1. w3 – 125 |
| 1. 36p4 - 25 | 1. y4 - 16 |
| 1. y3 – 3y2 + 4y – 12 | 1. c3 – 6c2 – 9c + 54 |

**Determine whether the binomial is a factor of the polynomial.**

|  |  |
| --- | --- |
| 1. f(x) = 3x3 + 7x2 – 8x – 5; **x + 5** | 1. f(x) = 2x3 + 15x2 – 23x + 36; **x + 9** |
| 1. f(x) = 6x5 – 8x4 – 6x3 – 4x2; **x – 2** | 1. f(x) = 12x3 – 69x2 + 39x + 30; **x – 6** |