

1. Determine whether  $25 - 49y^2$  is a difference of two squares. If so, factor it. If not, explain why.
  - a.  $(5 + 7y)(5 - 7y)$
  - b.  $(5 - 7y^2)(5 + 7y^2)$
  - c.  $(5 - 7y)(5 - 7y)$
  - d. Not a difference of squares because  $-49y^2$  is not a perfect square.
  
2. The expression  $9x^2 - 100$  is equivalent to
  - a.  $(9x - 10)(x + 10)$
  - b.  $(3x - 10)(3x + 10)$
  - c.  $(3x - 100)(3x - 1)$
  - d.  $(9x - 100)(x + 1)$
  
3. If Ann correctly factors an expression that is the difference of two perfect squares, her factors could be
  - a.  $(2x + y)(x - 2y)$
  - b.  $(2x + 3y)(2x - 3y)$
  - c.  $(x - 4)(x - 4)$
  - d.  $(2y - 5)(y - 5)$
  
4. When factored, the expression  $x^2 - 16$  is equivalent to