

**Page 18**

9. Factor the following differences of squares.

a)  $x^2 - 25$  \_\_\_\_\_  $(x + 5)(x - 5)$   
c)  $49x^2 - 36y^2$  \_\_\_\_\_  $(7x + 6y)(7x - 6y)$   
e)  $100 - x^2$  \_\_\_\_\_  $(10 + x)(10 - x)$   
g)  $x^2 - 3$  \_\_\_\_\_  $(x + \sqrt{3})(x - \sqrt{3})$   
i)  $16x^2 - \frac{1}{9}$  \_\_\_\_\_  $\left(4x + \frac{1}{3}\right)\left(4x - \frac{1}{3}\right)$

b)  $16x^2 - 9$  \_\_\_\_\_  $(4x + 3)(4x - 3)$   
d)  $36x^4 - 25y^6$  \_\_\_\_\_  $(6x^2 + 5y^3)(6x^2 - 5y^3)$   
f)  $\frac{x^2}{16} - \frac{y^2}{9}$  \_\_\_\_\_  $\left(\frac{x}{4} + \frac{y}{3}\right)\left(\frac{x}{4} - \frac{y}{3}\right)$   
h)  $x^2 - 1$  \_\_\_\_\_  $(x + 1)(x - 1)$   
j)  $\frac{25}{16}x^2y^4 - \frac{4}{9}z^6$  \_\_\_\_\_  $\left(\frac{5}{4}xy^2 + \frac{2}{3}z^3\right)\left(\frac{5}{4}xy^2 - \frac{2}{3}z^3\right)$

**Page 19**

10. Factor the following differences of squares.

a)  $(3x - 1)^2 - 9$  \_\_\_\_\_  $(3x + 2)(3x - 4)$   
c)  $(2x + 5)^2 - 16x^2$  \_\_\_\_\_  $(6x + 5)(-2x + 5)$   
e)  $16x^2 - (3x + 2)^2$  \_\_\_\_\_  $(7x + 2)(x - 2)$   
g)  $(x + 3)^2 - (2x + 5)^2$  \_\_\_\_\_  $(3x + 8)(-x - 2)$   
i)  $4(x + 5)^2 - 1$  \_\_\_\_\_  $(2x + 11)(2x + 9)$

b)  $(x + 1)^2 - 4$  \_\_\_\_\_  $(x + 3)(x - 1)$   
d)  $25x^2 - (2x - 5)^2$  \_\_\_\_\_  $(7x - 5)(3x + 5)$   
f)  $36x^2 - (2 - x)^2$  \_\_\_\_\_  $(5x + 2)(7x - 2)$   
h)  $(3x - 5y)^2 - (2x - 3y)^2$  \_\_\_\_\_  $(5x - 8y)(x - 2y)$   
j)  $25(x - 3)^2 - 9(2x + 1)^2$  \_\_\_\_\_  $(11x - 12)(-x - 18)$