

NAME: Solutions

Number Correct: _____

Factoring 'Speed Quiz' #1

Write each of the following expressions in factored form.

$$5a^2b + ab^3$$

$$= ab(5a + b^2)$$

$$t^2 - 4$$

$$= (t-2)(t+2)$$

$$10x + 35x^2$$

$$= 5x(2 + 7x)$$

$$3r^2 - 12$$

$$= 3(r^2 - 4)$$

$$= 3(r-2)(r+2)$$

$$16x^2 - 25$$

$$= (4x-5)(4x+5)$$

$$36z^2 - 100y^4$$

$$= (6z - 10y^2)(6z + 10y^2)$$

$$p^2 - 49$$

$$= (p-7)(p+7)$$

$$100w^2 + 600w$$

$$= 100w(w+6)$$

$$x^2 - 1$$

$$= (x-1)(x+1)$$

$$3x^3y^2z^2 - 5x^2y^5z$$

$$= x^2y^2z(3xz - 5y^3)$$

$$4x^2 - 49$$

$$= (2x-7)(2x+7)$$

$$9 - x^2$$

$$= (3-x)(3+x)$$

$$26aw - 13w + 39w^2$$

$$= 13w(2a - 1 + 3w)$$

$$6m^2 + 9m$$

$$= 3m(2m + 3)$$

$$x^4 - 9$$

$$= (x^2 - 3)(x^2 + 3)$$

$$12ab^2 + 4ab - 20a^2$$

$$= 4a(3b^2 + b - 5a)$$

$$x^4 - 16$$

$$= (x^2 - 4)(x^2 + 4)$$

$$= (x-2)(x+2)(x^2 + 4)$$