

Remark: Review of Laws of Exponents might be necessary.

Difference of Squares

$$a^2 - 9$$

$$1 - c^2$$

$$9x^2 - 4$$

$$9a^2 - 4b^2$$

$$49 - p^2$$

$$x^2y^2 - 4$$

$$25 - 49y^2$$

$$1 - 36a^2$$

$$16a^2 - b^2$$

$$\frac{4}{9} - x^2$$

$$4a^2 - 25$$

$$x^2y^2 - z^2$$

$$9 - m^2n^2$$

$$a^2b^2 - 16$$

$$y^4 - x^2$$

$$b^2c^2 - 1$$

$$x^{10} - 25$$

$$y^6 - 9$$

Using $(a-b)(a+b) = a^2 - b^2$, calculate $72^2 - 28^2$

$$19 \cdot 21, 165^2 - 65^2,$$

$$99 \cdot 101,$$

$$49 \cdot 51 = (50-1)(50+1)$$

Factor

$$(k+m)^2 - n^2$$

$$(a-2b)^2 - (2a-b)^2$$

$$(x+y)^2 - (x-y)^2$$

$$(x-1)^2 - (x+1)^2$$

$$(x-y)^2 - 1$$



{ Difference of Squares with Common Factoring first.

$$3a^2b - 12b = 3b(a^2 - 4) = 3b(a-2)(a+2)$$

$$12m^2 - 12n^2$$

$$2a^2 - 8$$

$$3an^2 - 27a$$

$$2a^3 - 8a$$

$$40b - 10b^3$$

$$2xy^2 - 50x$$

$$49x^2y^2 - 400$$

$$225 - 144c^2d^2$$

$$x^2y^2 - 0.25p^2q^2$$