

Factor

$$a) x^2 + 9x + 14$$
$$(x+7)(x+2)$$

Simple trinomial

Diff. of Squares

$$b) x^2 - 25$$
$$(x-5)(x+5)$$

$$c) 6x^2 - 13x + 5$$

HARD Trinomial

$$6x^2 - 10x - 3x + 5$$

$$2x(3x-5) - 1(3x-5)$$

$$(3x-5)(2x-1)$$

Decomposition

OR ...

$$\left(\frac{6x-10}{2} \right) \left(\frac{6x-3}{3} \right)$$
$$(3x-5)(2x-1)$$

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#11/ b) $4w^2 - 8wx - 21x^2$ (-84)

$$4w^2 + 6wx - 14wx - 21x^2$$
$$2w(2w + 3x) - 7x(2w + 3x)$$
$$(2w + 3x)(2w - 7x)$$

OR ...

$$\left(\frac{4w}{2} - \frac{14x}{2}\right)\left(\frac{4w}{2} + \frac{6x}{2}\right)$$
$$(2w - 7x)(2w + 3x)$$

f) $8p^2 + 18pq - 35q^2$ (-280)

$$\left(\frac{8p}{4} + \frac{28q}{4}\right)\left(\frac{8p}{2} - \frac{10q}{2}\right)$$

$$(2p + 7q)(4p - 5q)$$

13/ d) $8p^2 + 40pq + 50q^2$ 1. check for
GCF!!!

$$2(4p^2 + 20pq + 25q^2)$$
$$2(2p + 5q)^2$$

c) $12x^2 - 27y^2$

$$3(4x^2 - 9y^2)$$
$$3(2x - 3y)(2x + 3y)$$