

Warm up:

Factor.

1) $x^2 - 6x + 5$

$$(x-5)(x-1)$$

2) $n^2 - 8n - 20$

$$(n-10)(n+2)$$

3) $w^2 + 3w - 130$

$$(w-10)(w+13)$$

$$3x^2 + 23x + 14 \quad \begin{matrix} 1, 14 \\ 2, 7 \end{matrix}$$

$$(3x + 2)(x + 7)$$

$$4x^2 - 13x + 3$$

$$(4x - 1)(x - 3)$$
$$~~(2x)(2x)~~$$

$$6x^2 - xy - 15y^2 \quad \begin{matrix} 1, 15 \\ 3, 5 \end{matrix}$$

$$(6x \quad y) (x \quad y)$$

$$(3x - 5y) (2x + 3y)$$

$$3 + 16n - 12n^2 \quad \begin{matrix} 1, 12 \\ 2, 6 \\ 3, 4 \end{matrix}$$

$$(3 - 2n)(1 + 6n)$$

$$(-2n + 3)(6n + 1)$$

$$-12n^2 + 16n + 3 \quad 1, 3$$

$$\begin{array}{l} (-12n \quad) (n \quad) \\ (-6n - 1 \quad) (2n - 3 \quad) \\ (-4n \quad) (3n \quad) \end{array}$$

Factor.

1) $7x^2 + 8x + 1$ $(7x+1)(x+1)$

2) $5x^2 - 17x + 6$ $(x-3)(5x-2)$

3) $6r^2 - 11rp + 5p^2$ $(6r-5p)(r-p)$

4) $21c^2 + 4c - 12$ $(7c+6)(3c-2)$

5) $32n^2 - 4n - 15$ $(8n+5)(4n-3)$

6) $21x^2 + 22x - 24$ $(7x+12)(3x-2)$

$$\begin{array}{l} (21x \\ (7x \end{array}$$

$$\begin{array}{l}) (x \\) (3x \end{array}$$

$$\begin{array}{l}) \\ \Rightarrow \end{array} \begin{array}{l} 1, 24 \\ 2, 12 \\ 3, 8 \\ 4, 6 \end{array}$$