

Mixed Practice:

10)  $\frac{24x^2}{2} + \frac{16x}{2} + \frac{2}{2}$

$2[12x^2 + 8x + 1]$

$\frac{12x^2}{2x} + \frac{2x}{2x} + \frac{6x}{1} + \frac{1}{1}$

$2x(6x+1) + 1(6x+1)$

$2(6x+1)(2x+1)$

11)  $\frac{6pq}{3q} - \frac{3rq}{3q} + \frac{10p}{5} - \frac{5r}{5}$

$3q(2p-r) + 5(2p-r)$

$(2p-r)(3q+5)$

12)  $3x^2 - 17x + 20$

$\frac{3x^2}{x} - \frac{5x}{x} - \frac{12x}{-4} + \frac{20}{-4}$

$x(3x-5) - 4(3x-5)$

$(3x-5)(x-4)$

For #13 you will need to rearrange the terms to use Factor by Grouping. Make sure the first 2 terms have a common factor, then get the last 2 in the right order to match the first 2.

13)  $7w - 18x - 6wx + 21$

$\frac{7w}{7} + \frac{21}{7} - \frac{6wx}{-6x} - \frac{18x}{-6x}$

$\frac{7(w+3)}{w+3} - \frac{6x(w+3)}{w+3}$

$(w+3)(7-6x)$

or  $\frac{7w}{w} - \frac{6wx}{w} + \frac{21}{3} - \frac{18x}{3}$

$\frac{w(7-6x)}{7-6x} + \frac{3(7-6x)}{7-6x}$

$(7-6x)(w+3)$

14)  $\frac{7ab}{7a} + \frac{35a}{7a} - \frac{b}{-1} - \frac{5}{-1}$

$7a(b+5) - 1(b+5)$

$(b+5)(7a-1)$