

Name:

**Section 5.2a – Proficiency Check – Factoring Using the GCF and by Grouping**

Factor out the Greatest Common Factor. Leave answers in descending order.

$3x^3 - 18x^2 + 9x$	$-4x^4y^3 + 8x^2y^5 - 16x^3y^4$
$3(x + 1) - 4x(x + 1) + x^2(x + 1)$	$5x^2(y^2 - 3) - 2(y^2 - 3) + x(y^2 - 3)$

Factor by Grouping, leave answers in descending order.

$x^3 + x^2 + 3x + 3$	$x - 6x^2 + 2x^3 - 3$
$5y^3 - y^2 - 5y + 1$	$6x^3 - 2x^2 + 9x - 3$