

Name : \_\_\_\_\_

## Unknown Variables

Sheet 2

- 1) The GCF of polynomials  $(x^2 - 3x - a)(x^2 - 6x + 8)$  and  $(x^2 - 3x - 4)(x^2 - 1)$  is  $(x - 4)(x + b)$ . Find the values of  $a$  and  $b$ .
- 2) Find the values of  $r$  and  $s$ , if the GCF of polynomials  $rx^4 - 15x^3 + x^2 - 3x$  and  $x^3 - 3x^2 + x - s$  is  $x - 3$ .

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- 3) Determine the value of  $u$ , if the GCF of polynomials  $(3x^2 - ux - 10)(2x^2 - 3x + 4)$  and  $(x^2 - 3x - 4)(x^2 - 1)$  is  $(x - 4)(x + b)$ .
- 4) For what values of  $n$  and  $m$  will the polynomials  $nx^2 - 3x + 2$  and  $mx^2 - 5x + 3$  have  $2x - 5$  as their GCF?
- 5) If  $2x^2 - x - 6$  is the GCF of polynomials  $(10x^2 + px - 3)(4x^2 - 9x + 2)$  and  $(x^2 - 6x + 8)(2x^2 + 9x + q)$ , determine the values of  $p$  and  $q$ .