

### 5.3 Problems (6 pt Problems)

1. Factor the GCF from  $8x^2 - 10x^3 + 14x^5$  (check for errors by evaluation of appropriate expressions).
2. Factor the GCF from  $-14x^5y^6 - 21x^4y^7$  so that the other factor has positive leading coefficient (check for errors by evaluation of appropriate expressions).
3. Factor the GCF from  $(2x + 5) \cdot 7 - (2x + 5) \cdot 3x$  (check for errors by evaluation of appropriate expressions).
4. Factor  $3x^2 + 6x - 5x - 10$  by first writing it as a sum of two binomials (pair the first two terms to form the first binomial and the last two terms to form the second binomial) and factor the greatest common factor from each binomial. Check for errors by evaluation of appropriate expressions.

### 5.4 Exercises

1. Factor out the GCF of  $-5x^2 + 15x$ .
2. Factor out the GCF of  $16x^4y^6 - 20x^3y^7 + 6x^3y^9$ .
3. Factor out the GCF of  $-(x + 5)2x + 7(x + 5)$ .
4. Factor  $4x^2 - 2x + 6x - 3$  'by grouping'.