

MTH-4106 Factoring and Algebraic Fractions: **Worksheet #5**

Factor the following trinomials using the **product-sum method (4 step method)**:

1.  $3x^2 + 14x + 8$

2.  $7y^2 - 19y - 6$

3.  $3a^2 + a - 2$

4.  $2x^2 - x - 1$

5.  $3p^2 + 10pq + 7q^2$

6.  $15 - 2b - b^2$

13.  $8a^2 - 14ab + 3b^2$

14.  $5a^2 - 26ab + 5b^2$

15.  $9y^2 - 6y + 1$

16.  $3x^2 - 13x + 4$

17.  $6t^2 - 19t + 3$

18.  $15a^2 - 13ab + 2b^2$

25.  $2b^2 + 5b + 2$

26.  $2x^2 + 7x + 3$

27.  $2a^2 + 9a + 4$

28.  $2 + 9x - 18x^2$

29.  $-12x^2 - xy + y^2$

30.  $2x^2 + 9x + 9$

37.  $10x^2 - x - 2$

38.  $-8a^2 + 6ab - b^2$

39.  $-x^2 - 2x - 1$

40.  $1 - 16y + 64y^2$

41.  $5j^2 - 6j - 8$

42.  $12c^2 - 23cd + 10d^2$