

Name: _____

Algebraic Expansion and Factorisation: Worksheet 7

Date: _____

(a) Factorise $2x^2 + 13x + 21$. Hence or otherwise find the two factors of 12246.

(b) If $(a + b)^2 = 36.5$ and $ab = 13$, calculate the value of $a^2 + b^2$

(c) Factorise $a^2 - b^2$. Hence evaluate the value of $2530^2 - 2529^2 + 2728^2 - 2727^2$

(d) If $x^2 + y^2 = 86$ and $4xy = 96$, calculate the value of

(i) $(x + y)^2$ (ii) $(2x - 2y)^2$

(f) Given that $x + 2y = -1$ and $x - 2y = 9$, find the value of

(i) $x^2 - 4y^2$ (ii) $x^2 + 4y^2$