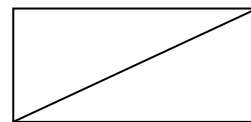


Name: _____ ()

Marks:

Class: _____

Date: _____



Hwa Chong Institution
Integrated Programme/mainstream
Secondary Two Mathematics

Revision 1: Expansion and Factorisation

Q1 **Expand** and simplify the following

(a) $x(-3y + 4)$

(b) $(2a + 5)^2$

(c) $(5x + 2)(x + 3)$

(d) $(3a - 5b)(4a - b)$

(e) $\left(x - \frac{3}{2}\right)^2$

(f) $(2a + 3b)(3a + 4b)$

(g) $(7x - 4y)(x + 3y)$

*(h) $(x - y + z)^2 - (y - z + x)^2$

*(i) $(x - y + 3z)(x - 2y)$

*(j) $x(x^2 + 2) - (x - 3)(5x + 7)$

Q2 **Factorise** the following completely

(a) $9mn + 12m + 6n + 8$

(b) $25a^2 - 4$

(c) $16x^3 - 8x^2$

(d) $m^5n^3 + m^4n^5 + m^3n^3$

(e) $(x - 3)^2 - 25$

(f) $2x + 4y - 3x - 6y$

(g) $x^2 + 12x - 45$

(h) $2x^2 + 7x + 3$

(i) $160a^2 - 90b^2$

(j) $3x^2 - 5x - 22$

(k) $8x^2 + 41x + 36$

(l) $x^2yz - x^2z + y^2k - yk$

(m) $15x^2 - 44x - 20$

*(n) $x^2 + 15x - 9450$

*(o) $(a - b)^3 - (a - b)^2$

*(p) $81 - b^4$

Q3 **Evaluate** the following using factorisation

(a) $28 \times 49 + 28 \times 51$

(b) $103^2 - 9$

(c) $1023^2 - 23^2$

(d) $879^2 + 121 \times 879$

Q4 If $a^2 - b^2 = 84$ and $a - b = 4$, find the value of $(a + b)^2$.

Q5 Given that $a^2 - b^2 = 96$ and $a + b = 16$, find the value of $a - b$.