
MATH3 (814013) – SPRING 2007

WORKSHEET 6

Question (1) : Factor completely (relative to integers):

1) $a^2 - 2ab + b^2 - a + b$

2) $3x^2(1-x^2)^2 + 18x^2(1-x^2) + 27x^2$

3) $x^{n+3} + 5x^n + x^3 + 5$

4) $x^3(y^2 - 4) - 8(y^2 - 4)$

5) $x^2 + y^2 - 2xy - 3y + 2 + 3x$

6) $(x^2 - 4)^2 - 2(x^2 - 4) - 15$

7) $y^2 - x^2 + y - x$

8) $6a^4 - 24a^2 + 24$

9) $18x^3 - 8x(b^2 + 8b + 16)$

10) $r^4 - 81$

11) $x^6 - y^6$

12) $5x^2 - 40x - x + 8$

13) $625y^4 - 1$

14) $18wy - 9xz - 3wz + 54xy$

15) $9(a^2 - 4ab + 4b^2)x - 4x^3$

Question (2) : Factor by grouping method:

1) $15x - 3(6 - x^2) + 10x^2 - 2x(6 - x^2)$

2) $18x^2 - 24xy + 8y^2 - 6x + 4y$