

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

DEPARTMENT OF MATHEMATICS AND STATISTICS

SECTION 1.3

Math 1090 Worksheet

FALL 2026

For practice only. Not to be submitted.

1. Expand (multiply out) each of the following, simplifying where possible.

(a) $3(x + 1) - (5 - x + 2x^2)$

(b) $-2(x - 5) + (2x - 3)^2 - (x + 2)(x - 4)$

2. Completely factor each polynomial.

(a) $6x^3 + 9x^2$

(b) $49x^2 - 16$

(c) $49x^2 + 16$

(d) $x^4 - 1$

(e) $x^2 - 7x + 6$

(f) $x^2 - 5x + 6$

(g) $x^2 + 5x - 24$

(h) $4x^2 + 18x + 8$

(i) $9x^2 - 30x + 25$

(j) $12x^2 - x - 6$

(k) $4 + 19x - 5x^2$

(l) $x^4 + 5x^2 + 4$

(m) $x^4 - 5x^2 + 4$

(n) $8x^3 + 27$

(o) $14x^2 - 2x^3 - 20x$

(p) $x^3 + 2x^2 - 4x - 8$