**C1 : Algebraic Expression**

**Name: ………………………………..**

**Score:** $\frac{}{22}$ **Percentage: Grade: Target grade:**

1. Given that f (x) = x2 + 5x - 4 and g (x) = 4x3 + 2x2 + x – 4, find

(a) f (x) + g (x) [2]

(b) 2 f (x) – g (x) [2]

(c) f (5) [1]

(d) g (-4) [1]

2. Expand and simplify (x + 3)(x – 4)(x – 5) [3]

3. Factorise fully 4x5y4 + 14x5y2 + 14x6y3 [2]

4. Factorise this quadratic 6x2 + 17x +12 [2]

5. Simplify $\frac{4ab^{2}}{2}×\frac{2a}{3b^{3}}$ [3]

6. Simplify this $\frac{\frac{1}{c}-\frac{1}{d}}{\frac{2}{c}+\frac{1}{d}}$ [2]

7. If f (x) and g (x) are polynomials of degree 5 and 8 respectively, state the degree of

(a) f (x) + g (x) [2]

 (b) f (x) g (x) [2]

**The topics that I need to study further are …**