PAST EXAMINATION QUESTIONS : IDENTITIES

1. The expression $(ax + b)(x - 2) + c(x^2 + 3)$ is equal to 14 for all values of x. By substituting suitable values for x, or otherwise, calculate the numerical values of a, b and c. (N68/P2/6ii)

2. The expression $a(x - 2) + b(x - 4)$ is equal to $x + 2$ for all value of x. By giving suitable values to x, or otherwise, find the numerical values of a and b. (J72/P2/5i)

3. Given that $x^3 - 3x^2 - 4x + 16 \equiv (x - 2)(x + 3)(x - C) + Px + Q$, find the value of P, of Q and of C. (J82/P2/12b)

4. Given that $3x^2 - 7x + 4 = A(x - 2)^2 + B(x - 2) + C$ for all values of x, find the value of A, of B and of C. (sp2/1a)

5. Given that $3x^2 - 11x + 3 = A(x - 2)(x - 1) + B(x - 1) + C$ for all values of x, find the values of A, B and C. (J89/P2/1d)

6. Given that, for all values of x, $2x^3 + 3x - 14x - 5 = (Ax + 5)(x + 3)(x + 1) + C$, evaluate A, B and C. (J92/P2/1c)

7. For all values of x, $3x^3 + 5x^2 - 4x - 3 \equiv (Ax + 2)(x + B)(x - 1) + C$. Find the value of A, of B and of C. (N94/P2/1c)

8. Given that $2x^2 + x + C \equiv A(x + 1)^2 + B(x + 1) + 4$ for all values of x, find the values of A, B and C. (N95/P2/1c)

9. Given that $2x^3 + 5x^2 - 6x - 5 \equiv (Ax - 3)(x + B)(x + 1) + C$, for all values of x, find the value of each of A, B and C, (J99/P2/1b)

1. $-2, -4, 2$
2. $a = 3, b = -2$
3. $6, -8, 4$
4. $3, 5, 2$
5. $A = 3, B = -2, C = -5$
6. $2, -5, 10$
7. $3, 2, 1$
8. $2, -3, 3$
9. $A = 2, B = 3, C = 4$