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CSIS 213-3941

Assignment 15 Quiz 11 Pt 2

**Question 3**

Expand this expression: (*u* - *v2*)5

**Answer:**

(u – v2)5 = Ʃ5k = 0 (5k) u5-k(-v2)k

= (50) u5(-v2)0 + (51) u5-1(-v2)1 + (52) u5-2(-v2)2 + (53) u5-3(v2)3 + (54) u5-4(-v2)4 + (55) u5-5(-v2)5

= (1)u5(1) + (5)(u4)(-v2) + (10)(u3)(v4) + (10)(u2)(-v6) +

(5)(u1)(v8) + (1)(1)(-v10)

= u5 - 5u4v2 + 10u3v4 – 10u2v6 + 5uv8 – v10