**Binomial Squared. (1%)**

1. **(4x3 – 2y2)2 = 16x6-16x3y2+4y4**

**Binomial to the Cube. (1%)**

1. **(x2 + 5y)3 = x6+15x4y+75x2y2+125y3**

**Difference of Squares. (1%)**

1. **144x4 – y12 = (12x2+y6) (12x2-y6)**

**Cube Difference. (1%)**

1. **729a3 – b12 = (9a-b4) (91a2+b8+9ab4)**

**Sum of Cubes. (1%)**

1. **X9 + 64 = (x3+4) (x18+16-4x3)**

**Squared Trinomial. (1%)**

1. **(6x2 – 4y – 16)2 = 36x4+16y2+256−48x2y−192x2+128y**

**Matrix Addition and Subtraction. (4%)**

1. **Addition.**

|  |  |
| --- | --- |
| **7** | **4** |
| **– 7** | **12** |
| **5** | **1** |

**A = B =**

|  |  |
| --- | --- |
| **3** | **–2** |
| **0** | **4** |
| **– 1** | **4** |

**C=**

|  |  |
| --- | --- |
| **10** | **2** |
| **-7** | **16** |
| **4** | **5** |

1. **Subtraction.**

|  |  |  |  |
| --- | --- | --- | --- |
| **2** | **5** | **7** | **9** |
| **0** | **10** | **5** | **1** |

**M = N =**

|  |  |  |  |
| --- | --- | --- | --- |
| **8** | **5** | **2** | **0** |
| **1** | **– 1** | **6** | **3** |

**C=**

|  |  |  |  |
| --- | --- | --- | --- |
| **6** | **0** | **-5** | **-9** |
| **1** | **-11** | **1** | **2** |

**Sarrus Rule (5%)**

|  |  |  |  |
| --- | --- | --- | --- |
| **3** | **2** | **0** | **– 4** |
| **– 2** | **1** | **3** | **5** |
| **0** | **5** | **– 1** | **2** |
| **2** | **– 1** | **0** | **4** |

**= -255-60-120 = -435**

**+3**

|  |  |  |
| --- | --- | --- |
| **1** | **3** | **5** |
| **5** | **-1** | **2** |
| **-1** | **0** | **4** |
| 1 | 3 | 5 |
| 5 | -1 | 2 |

**=** (-4+0-6) -(5+0+60) = (-10) -(65) = -75(3) = **-225**

**-2**

|  |  |  |
| --- | --- | --- |
| **-2** | **3** | **5** |
| **0** | **-1** | **2** |
| **2** | **0** | **4** |
| -2 | 3 | 5 |
| 0 | -1 | 2 |

**=** (8+0+12) -(-10+0+0) = (20) -(-10) = 30(-2) = **-60**

**-0**

|  |  |  |
| --- | --- | --- |
| **-2** | **1** | **5** |
| **0** | **5** | **2** |
| **2** | **-1** | **4** |
| -2 | 1 | 5 |
| 0 | 5 | 2 |

**= 0**

**+4**

|  |  |  |
| --- | --- | --- |
| **-2** | **1** | **3** |
| **0** | **5** | **-1** |
| **2** | **-1** | **0** |
| -2 | 1 | 3 |
| 0 | 5 | -1 |

**=** (0+0-2) -(30-2+0) = (-2) -(28) = -30(4) = -**120**