**Examples:**

**Determine the degree and number of terms for each polynomial below.**

1. 3a2b2 – 3.4a3 – 0.7ab5 + 3 2. -5xy3 – 3x4y + 6xy

**1. Find the degree of a monomial:**

(i) 7xyz

(ii) -5abc4

**2. Find the degree of a binomial:**

(i) -11x2 + 3xyz

(ii) 5p2q + 3pq3r

**3. Find the degree of a trinomial:**

(i) a + b + c

(ii) –yz2 – y3z2 + 5x2y2z2

**4. For each of the following polynomials write down its degree and number of terms:**

(i) 1 + 3z

(ii) 1 + 3m + 5m2  
  
(iii) 4u + 5u3 + 17u5 + 7  
  
(iv) a9 + 4a3 + 7a2 + 10  
  
(v) -11p + 7  
  
(vi) m6 + m9

**5. State the degree and number of terms of the polynomials:**

(i) 2a2 + 3a2 + 4a  
  
(ii) 5a3b – 7a2 + 11b2  
  
(iii) (2/7)xy2 – (7/2)x2y + y  
  
(iv) (5m2n)/6 – 9m2  
  
(v) 4a3 – 4a2 + 5a - 6  
  
(vi) 102n + 5mn2 + 1

**6. Find the degree and number of terms of the polynomials:**

(i) a + a2  
  
(ii) 2b2 – 5b + 2  
  
(iii) -9ab + 11b  
  
(iv) p3 + p8 – p10  
  
(v) 1 – 100c20  
  
(vi) 10 + 17k – 23k3

**Part II:** *Collect like terms to simplify the polynomial expression, and determine the degree and number of terms.*

**1.)** 3x2 – 4x2 **2.)** 5x3 – 3 – x3

**3.)** 2x2 – 6x + 3x + 4x2 + 5 **4.)** 5y3 – y2 + y3 – 1 + 3y2 – 4

**5.)** 2ab2 + 3ab -5a2b + 4ab2 **6.)** 6x2 – x2y + xy – 3x2 + 5xy2 – 2x2y + xy + x2