

### **Algebraic Expressions and Identities: Worksheet -8**

(i) If  $x + y = 7$ ,  $xy = 12$  find the value of  $x^2 + y^2$

(ii) If  $x - y = 3$ ,  $xy = 10$  find the value of  $x^2 + y^2$

(iii) If  $2x + 3y = 13$ ,  $xy = 6$  find the value of  $4x^2 + 9y^2$

(vi) If  $x - \frac{1}{x} = 5$ , find the value of  $x^2 + \frac{1}{x^2}$  and  $x^4 + \frac{1}{x^4}$

