

EduSahara™ Learning Center Assignment**Grade : Class VII, ICSE****Chapter : Special Products As Identities****Name : Finding Values of Algebraic Expressions****Licensed To : Teachers and Students for non-commercial use**

1. If $\left(x + \frac{1}{x}\right) = 3$, find the value of $\left(x^2 + \frac{1}{x^2}\right)$

(i) 7 (ii) 6 (iii) 10 (iv) 8 (v) 5

2. If $\left(x + \frac{1}{x}\right) = 8$, find the value of $\left(x^4 + \frac{1}{x^4}\right)$

(i) 3842 (ii) 3845 (iii) 3839 (iv) 3843 (v) 3841

3. If $\left(x - \frac{1}{x}\right) = 3$, find the value of $\left(x^2 + \frac{1}{x^2}\right)$

(i) 11 (ii) 10 (iii) 12 (iv) 8 (v) 14

4. If $\left(x - \frac{1}{x}\right) = 2$, find the value of $\left(x^4 + \frac{1}{x^4}\right)$

(i) 35 (ii) 31 (iii) 33 (iv) 36 (v) 34

5. If $\left(2x + \frac{1}{2x}\right) = 4$, find the value of $\left(4x^2 + \frac{1}{4x^2}\right)$

(i) 13 (ii) 11 (iii) 14 (iv) 15 (v) 16

6. If $\left(5x - \frac{1}{5x}\right) = 9$, find the value of $\left(25x^2 + \frac{1}{25x^2}\right)$

$$3x$$

$$9x^2$$

(i) $\frac{253}{3}$ (ii) $\frac{251}{3}$ (iii) $\frac{421}{5}$ (iv) 85

7. If $(a + b) = 5$, $ab = 6$, find $(a^2 + b^2)$

(i) 13 (ii) 14 (iii) 15 (iv) 12 (v) 11

8. If $(6a + 6b) = 48$, $ab = 12$, find $(36a^2 + 36b^2)$

(i) 1440 (ii) 1437 (iii) 1443 (iv) 1441 (v) 1439

9. If $(a + b) = 9$, $ab = 20$, find $(a^4 + b^4)$

(i) 882 (ii) 883 (iii) 881 (iv) 878 (v) 880

10. If $(2a + 2b) = 14$, $ab = 12$, find $(16a^4 + 16b^4)$

(i) 5389 (ii) 5392 (iii) 5393 (iv) 5391 (v) 5394

Assignment Key

- 1) (i)
- 2) (i)
- 3) (i)
- 4) (v)
- 5) (iii)
- 6) (i)
- 7) (i)
- 8) (i)
- 9) (iii)
- 10) (ii)