

Q.1 Use a suitable identity to get each of the following products:

(a) $(x + 5)(x + 5)$

(b) $(2y - 3)(2y - 3)$

(c) $(a^2 + b^2)(-a^2 + b^2)$

(d) $(x+3)(x+7)$

(e) $(4x + 5)(4x - 1)$

(f) $(3a - 2)(3a + 2)$

(g) $(4 - a)(a + 4)$

(h) $(a^2 + b^2)$

Q.2 Using identities, evaluate

(a) 41^2

(b) 94^2

(c) 78×82

(d) 10.5×9.5

(e) 101×103

Kota, Rajasthan
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(f) 199^2

Q.3 Using $a^2 - b^2 = (a + b)(a - b)$, Find

(a) $100^2 - 99^2$

(b) $40^2 - 30^2$

(c) $17^2 - 16^2$

(d) $9999^2 - 1^2$

Q.4 If $x^2 + \frac{1}{x^2} = 38$, Find the value of

(a) $x - \frac{1}{x}$

(b) $x^4 + \frac{1}{x^4}$