



SHIKSHA CLASSES

Sub. : Maths

Question Paper

Marks : 20

Std. : VIIIth - S.B.

5. Expansion formulae

Time : 45 min.

Q.1 : A) Select the most appropriate Alternative.

02

1) The expansion of $(x - 10)(x + 12)$ is _____.

a) $x^2 + 2x - 120$

b) $x^2 - 2x - 120$

c) $x^2 + 2x + 120$

d) $x^2 - 2x + 120$

2) The expansion of $\left(x + \frac{1}{3}\right)\left(x - \frac{7}{3}\right)$ is _____.

a) $x^2 - \frac{8}{3}x - \frac{7}{9}$

b) $x^2 + \frac{8x}{3} - \frac{7}{9}$

c) $x^2 - 2x + \frac{7}{9}$

d) $x^2 - 2x - \frac{7}{9}$

: B) Solve the following.

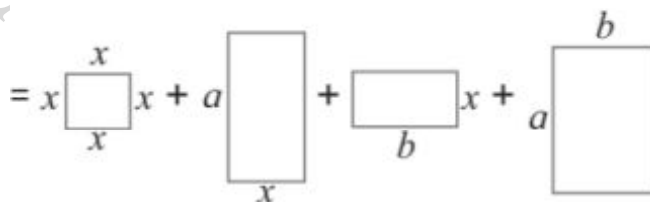
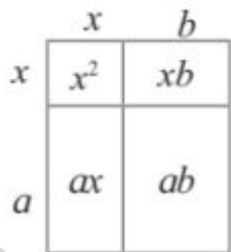
01

1) **Expand :** $(a + 2)(a - 1)$.

Q.2 : A) Solve any one of the following. (Activity)

02

1) Activity : Expand $(x + a)(x + b)$ using formulae for areas of a square and a rectangle.



$$(x + a)(x + b) = x^2 + ax + bx + ab$$

$$= x^2 + (a + b)x + ab.$$

$$2) (101)^2 = (100 + 1)^2$$

$$= \boxed{} + \boxed{} + 1^2$$

$$= \boxed{} + \boxed{} + 1 = \boxed{10201}.$$

: B) Solve any one of the following.

02

$$1) \text{ Expand : } \left(x + \frac{1}{x}\right)\left(x - \frac{1}{x}\right).$$

$$2) \text{ Expand : } (101)^3 \text{ [using suitable identity]}$$

Q.3 : A) Solve any one of the following.(Activity)

03

1) Fill in the boxes with appropriate terms in the steps of expansion.

$$(2p + 3m + 4n)^2$$

$$= (2p)^2 + (3m)^2 + \boxed{} + 2 \times 2p \times 3m + 2 \times \boxed{} \times 4n + 2 \times 2p \times \boxed{}$$

$$= \boxed{} + 9m^2 + \boxed{} + 12pm + \boxed{} + \boxed{}$$

$$2) \text{ Expand : i) } (98)^2 = (100 - 2)^2$$

$$= 10000 - \boxed{} + \boxed{}$$

$$= 9604.$$

$$\text{ii) } (5m + 3n)(5m - 3n)$$

$$= \boxed{} - \boxed{}$$

$$= \boxed{} - \boxed{}.$$

: B) Solve any one of the following.

03

$$1) \text{ Expand : } \left(2p - \frac{1}{2p}\right)^3.$$

$$2) \text{ Expand : } (3x + 4y - 5p)^2.$$

Q.4 : Solve any one of the following.

04

$$1) \text{ Simplify : } (2x + 3y)^3 - (2x - 3y)^3.$$

$$2) \text{ Simplify : } (3k - 4r - 2m)^2 - (3k + 4r - 2m)^2.$$

Q.5 : Solve any one of the following.

03

$$1) \text{ Simplify : } \left(x + \frac{1}{x}\right)^3 - \left(x - \frac{1}{x}\right)^3.$$

$$2) \text{ Expand : } (x^2 + x + 1)^2.$$

BECOME AN ACE IN JEE & NEET



SHIKSHA CLASSES

Believe & Achieve

JEE | NEET | Previsa (8-10)

📞 8625055707 | 8623085707 🌐 shikshaclasses.co.in

M-19, MHADA Colony, Khat Road, Bhandara



Learn with Jaiswal sir