



EXAM PAPERS PRACTICE

Factorising & Expanding

Question Paper



Question 1

Factorise completely.

$$kp + 3k + mp + 3m \quad [2]$$

Question 2

Factorise completely.

$$15p^2 + 24pt \quad [2]$$



Question 3

(a) Find the value of $7p - 3q$ when $p = 8$ and $q = -5$. [2]

(b) Factorise completely. $3uv + 9vw$ [2]

Question 4

Factorise completely $ax + bx + ay + by$. [2]



Question 5

Factorise completely.

$$p^2x - 4q^2x$$

[3]

Question 6

Factorise completely.

$$2xy - 4yz$$

[2]



Question 7

Factorise

(a) $4x^2 - 9$, [1]

(b) $4x^2 - 9x$, [1]

(c) $4x^2 - 9x + 2$. [2]



Question 8

(a) $7ac + 14a$,

[1]

(b) $12ax^3 + 18xa^3$.

[2]



Question 9

(a) Factorise completely $12x^2 - 3y^2$. [2]

(b) (i) Expand $(x - 3)^2$. [2]

(ii) $x^2 - 6x + 10$ is to be written in the form $(x - p)^2 + q$. [2]
Find the values of p and q .



Question 10

Factorise completely.

$$2x - 4x^2$$

[2]

Question 11

Expand and simplify.

$$x(2x + 3) + 5(x - 7)$$

[2]

Question 12

Factorise completely.

$$9x^2 - 6x$$

[2]



Question 13

Factorise $2x^2 - 5x - 3$.

[2]

Question 14

Factorise $14p^2 + 21pq$.

[2]



Question 15

Factorise completely.

(a) $ax + ay + bx + by$ [2]

(b) $3(x - 1)^2 + (x - 1)$ [2]

Question 16

Factorise Completely.

$15a^3 - 5ab$ [2]



Question 17

Factorise completely.

(a) $a + b + at + bt$ [2]

(b) $x^2 - 2x - 24$ [2]

Question 18

Factorise completely.

$12xy - 3x^2$ [2]



Question 19

Factorise completely.

$$ap + bp - 2a - 2b$$

[2]



Question 20

Factorise completely.

$$12x^2 + 15xy - 9x$$

[2]

Question 21

Expand the brackets and simplify.

$$(5 - n)(3 + n)$$

[2]

Question 22

Factorise completely.

$$12n^2 - 4mn$$

[2]

Question 23

Factorise.

$$14x - 21y$$

[1]

Question 24

Factorise completely.

$$4x^2 - 8xy$$

[2]



Question 25

(a) Simplify.

$$\frac{4(x-6)^2}{(x-6)}$$

[1]

(b) Expand the brackets and simplify.

$$(x+4)^2 + 5(3x+2)$$

[3]

Question 26

Expand the brackets and simplify.

$$4(5w+3) - 2(w-1)$$

[2]



Question 27

Factorise.

(a) $m^3 + m$ [1]

(b) $25 - y^2$ [1]

(c) $x^2 + 3x - 28$ [2]

Question 28

$y = x^2 + 7x - 5$ can be written in the form $y = (x + a)^2 + b$.

Find the value of a and the value of b . [3]



Question 29

Factorise $2x - 4xy$.

[2]

Question 30

Factorise

(a) $9w^2 - 100$,

[1]

(b) $mp + np - 6mq - 6nq$.

[2]