

FOUNDATION⁺ (V₂)

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Class: VI. MATHEMATICS

2. INTRODUCTION TO ALGEBRA

TEACHING TASK (JEE MAINS)

01. $3a, 2b, -c$

Ans: A

02. $2y + 3z - 16x$

Ans: A

03. $A = bh$

Ans: A

04. $a^2b^2c^2$

Ans: B

05. -3

Ans: C

06. 4

Ans: C

07. $5y - 2$

Ans: B

08. $4p^2 - 1$

Ans: C

09. 4

Ans: D

10. Trinomial and cubic

Ans: D

11. $3mn + 7, m^2n^2 - mn$

Ans: D

12. $4p - 7$

Ans: D

13. $3(x - 2) > 2x + 5$

$\Rightarrow 3x - 6 > 2x + 5$

$\Rightarrow x > 11$

Ans: D

JEE ADVANCED

14. $4x^2$, $5ab \rightarrow$ monomials

$2m + n - p \rightarrow$ Trinomial

Ans: A, C, D



15	$3a - b + 2c - d, 4m^2 - 5n + 2p - 7q$	Ans: C, D
16	All are binomials, multinomials	Ans: A, B, C, D
17.	<u>Statement I:</u> Conceptual (False) <u>Statement II:</u> Conceptual (True) False	Ans: D
18	<u>Statement I:</u> $(x^2 y^3)^n = x^{2n} \cdot y^{3n}$ (True) <u>Statement II:</u> Conceptual (True)	Ans: A
19	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (True)	Ans: A
20	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (True)	Ans: A
21	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (False)	Ans: C
22	$B = 4a^3 - 5ab^2 + 7 \rightarrow \text{Degree} = 3$	Ans:
22	$D = 2pq - 3pr + 5q^2$ All terms have same degree = 2	Ans: D
23	$(3x^2 - 2y)2x = 6x^3 - 4xy$	Ans: A
24.	3	Ans: A
25	All are polynomials	Ans:
26	1	Ans: A
27.	Degree = 3	Ans: 3
28	$4(2)^3 = 32$	Ans: 32

29. a) $x^2 - 3x = 2^2 - 3 \cdot 2 = 4 - 6 = -2$ (Q) (3)
 b) $x^2 + 3 - 8 = 2^2 - 5 = 4 - 5 = -1$ (S)
 c) $x^5 - 33 = 2^5 - 33 = 32 - 33 = -1$ (S)
 d) $16 - 5x = 16 - 5 \cdot 2 = 16 - 10 = 6$ (P)
 Ans: Q, S, S, P

30 a) $\frac{pq}{4}$ (x)

b) $x + 10y$ (P)

c) $3x + 9y$ (S)

d) $p^2 + q^3$ (Q)

Ans: x, P, S, Q

LEARNERS TASK (CUE'S)

01. $2(x+3) = 2x+6$

Ans: A

02. -2

Ans: C

03. -2

Ans: B

04. $2q^2$

Ans: C

05. $2xy, 4yz$

Ans: D

06. xyz

Ans: C

07. Degree = 4

Ans: B

08. $-7x$

Ans: C

09. $3x^2 - 2x$

Ans: C

10. All are multinomials

Ans: A, B, C, D

11. $2x + y^3$

Ans: D

12	5	Ans: C (4)
13	$x+2$	Ans: B
14	a, b, x	Ans: D
15	$4-2x$	Ans: B

JEEMAINS LEVEL

01.	$\left(\frac{4}{9}\right)^{25}$	Ans: A
02	$\frac{3}{2} x a x b x b x c x c x c$	Ans: B
03	$x^{p-q+q-r+r-p} = x^0 = 1$	Ans: C
04	$k^3 - 2k^2$	Ans: C
05	All are trinomials	Ans: D
06	Binomial	Ans: A
07	$4x+10$	Ans: B
08	Trinomial, cubic	Ans: C
09	$\frac{4}{5}y, y, -3y$	Ans: C
10	$2x^3 - \frac{4}{x^2} + 9$	Ans: B
11.	$(6a^2)^2 + (-4ab)^2 + (1)^2$ $= 36a^4 + 16a^2b^2 + 1 \rightarrow$ Trinomial	Ans: C
12	$x+b < 0$	Ans: D
13	-3	Ans: B

14	$x^2 + 2y^2, ab^2 + 4ab^2, z + 7$	Ans: A, B, C
15	$2x - 4y, 6x + 9 \rightarrow$ binomials $3a^2 - 5ab + 2b^2, 2xy - 7x + 5 \rightarrow$ Trinomials Ans: A, B, C, D	
16	$3x^2 + 4y - z, 5a^2b + 2ab^2 - 3a,$ $7m + 2n - 1 \rightarrow$ multinomials	Ans: A, B, C
17	<u>Statement I:</u> Conceptual (True) <u>Statement II:</u> Conceptual (True)	Ans: A
18	<u>Statement I:</u> Conceptual (True) <u>Statement II:</u> Conceptual (False)	Ans: C
19	<u>Assertion:</u> Conceptual (True) <u>Statement Reason:</u> Conceptual (True)	Ans: A
20	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (True)	Ans: A
21	<u>Assertion:</u> Conceptual (False) <u>Reason:</u> Conceptual (True)	Ans: D
22	$x^3 + 7x^2 + x + 1$	Ans: C
23	1	Ans: A
24	Multinomial	Ans: C
25	2	Ans: B
26	3	Ans: C

27	3	Ans: 3 ⁽⁶⁾
28	5	Ans: 5
29.	$2(x + \frac{1}{x})$, when $x = 2$ $2(2 + \frac{1}{2}) = 5$	Ans: 5
30	a) $x^3 + x^2 + x + 1$ (q) b) 1 (x) c) $x^2 + x + 1$ (p) d) $x + 1$ (s)	Ans: q, r, p, s
31	a) $x + \frac{1}{x} \rightarrow$ Mathematical Algebraic Expression (s) b) $4 + 5 > 7 \rightarrow$ Mathematical statement (q) c) $15 + 7 = 22 \rightarrow$ Mathematical sentence (r) d) $x + 8 = 13 \rightarrow$ open sentence (p)	Ans: s, q, r, p

$\Rightarrow$ THE END $\in$