★ Revision ★

Ch-1

Q1] Rationalise the denominator.

① $\frac{1}{\sqrt{9}-\sqrt{8}}$ ② $\frac{1}{2\sqrt{5}}$ ③ $\frac{\sqrt{2}+\sqrt{5}}{\sqrt{3}}$ ④ $\frac{\sqrt{2}-1}{\sqrt{5}}$

Q2] Represent $\sqrt{6}, \sqrt{7}, \sqrt{8}$ on a number line

Q.3] Represent $\sqrt{3.5}$ on number line.

Q.4] Find three rational & three irrational no betw:

① 0.5 & 0.55

② 0.3030030003..... & 0.3010010001000001.....

Q.5] Which of the following are rational & Irrational number.

① $\sqrt{4}$ - Rational

② $3\sqrt{18}$ - Irrational

③ $\sqrt{1.44}$ - Rational

④ $\sqrt{\frac{9}{27}}$ - Irrational

⑤ $\sqrt{64}$ - Rational

⑥ $\sqrt{100}$ - Rational

⑦ $\sqrt{7}$ - Irrational

⑧ $2+\sqrt{3}$ - Irrational

⑨ $\sqrt{3}+\sqrt{2}$ - Irrational

⑩ $(\sqrt{2}-2)^2$ - Irrational

⑪ $(\sqrt{23})$ - Irrational

⑫ $\sqrt{5}-2$ - Irrational

⑬ $(2-\sqrt{2})(2+\sqrt{2})$ - R

⑭ 1.01001000100001.....

⑮ $0.\overline{3796}$

Q.1]

⑤ $\frac{1}{3+\sqrt{2}}$ ⑥ $\frac{6-4\sqrt{2}}{6+4\sqrt{2}}$

Q.6] Express in $\frac{p}{q}$ form

① $0.\overline{4}$
② $0.\overline{37}$
③ $0.\overline{54}$
④ $0.\overline{621}$
⑤ $125.\overline{3}$
⑥ $8.4.\overline{7}$
⑦ $0.4\overline{7}$
⑧ 1.001
⑨ $2.\overline{15}$
⑩ 9.900

Q.7] Express in decimals

① $\frac{327}{500}$ ② $\frac{15}{4}$ ③ $\frac{2}{3}$ ④ $-\frac{4}{9}$ ⑤ $-\frac{22}{13}$

⑥ $-\frac{2}{15}$ ⑦ $\frac{437}{999}$ ⑧ $\frac{33}{26}$ ⑨ $\frac{42}{100}$ ⑩ $\frac{23}{30}$

Q.8] Simplify

① $(16^{-\frac{1}{5}})^{\frac{5}{2}}$ ② $\sqrt[3]{(343)^{-2}}$ ③ $(0.001)^{\frac{1}{3}}$

④ $\frac{(25)^{\frac{3}{2}} \times (243)^{\frac{2}{5}}}{(16)^{\frac{5}{2}} \times (8)^{\frac{4}{3}}}$ ⑤ $\left(\frac{\sqrt{2}}{5}\right)^{8} \div \left(\frac{\sqrt{2}}{5}\right)^{13}$

* Extra Questions *
Ch-2

Q.1] Evaluate using identities

① $(2x+y)(2x-y)$

② $\left(2x-\frac{1}{x}\right)^2$

③ $(1.5x^2-0.3y^2)(1.5x^2-0.3y^2)$

④ $(0.98)^2$

⑤ 117×83

⑥ $0.76\times0.76+2\times0.76\times0.24+0.24\times0.24$

⑦ $(a+2b+c)^2$

⑧ $\left(\frac{x}{y}+\frac{y}{z}+\frac{z}{x}\right)^2$

⑨ $(-2x+3y+2z)^2$

⑩ $(x^2+y^2-z^2)^2-(x^2-y^2+z^2)^2$

⑪ $(x+y+z)^2+\left(x+\frac{y}{2}+\frac{z}{3}\right)^2-\left(\frac{x}{2}+\frac{y}{3}+\frac{z}{4}\right)^2$

⑫ $\left(\frac{1}{x}+\frac{1}{3y}\right)^3$

⑬ $\left(4-\frac{1}{3x}\right)^3$

⑭ $(2x-5y)^3-(2x+5y)^3$

⑮ $(103)^3$

⑯ $(9.9)^3$

⑰ 111^3-8a^3

⑱ 104^3+96^3

⑲ $(3x+2y)(9x^2-6xy+4y^2)$

⑳ $\left(\frac{3}{x}-\frac{5}{y}\right)\left(\frac{9}{x^2}+\frac{25}{y^2}+\frac{15}{xy}\right)$

(21) $(3x+2y+2z)(9x^2+4y^2+4z^2-6xy-4yz-6xz)$

(22) $48^3-30^3-18^3$

(23) $(x+y)^3-(x-y)^3$

Q.2] If $a^2+b^2+c^2=20$ & $a+b+c=0$
find $ab+bc+ac$

Q.3] If $ab+bc+ac=40$ & $a+b+c=a$
Find $a^2+b^2+c^2$

Q.4] If $ab+bc+ac=3$ & $a^2+b^2+c^2=250$
find $a+b+c$

Q.5] Verify whether the indicated values are zeros of polynomials.

(1) $p(x)=3x+1$, $x=\frac{-1}{3}$

(2) $p(x)=x^2-1$, $x=1,-1$

(3) $p(x)=3x^2-2$, $x=\frac{2}{\sqrt{3}}, \frac{-2}{\sqrt{3}}$

(4) $p(x)=x^3-6x^2+11x-6$, $x=1,2,3$

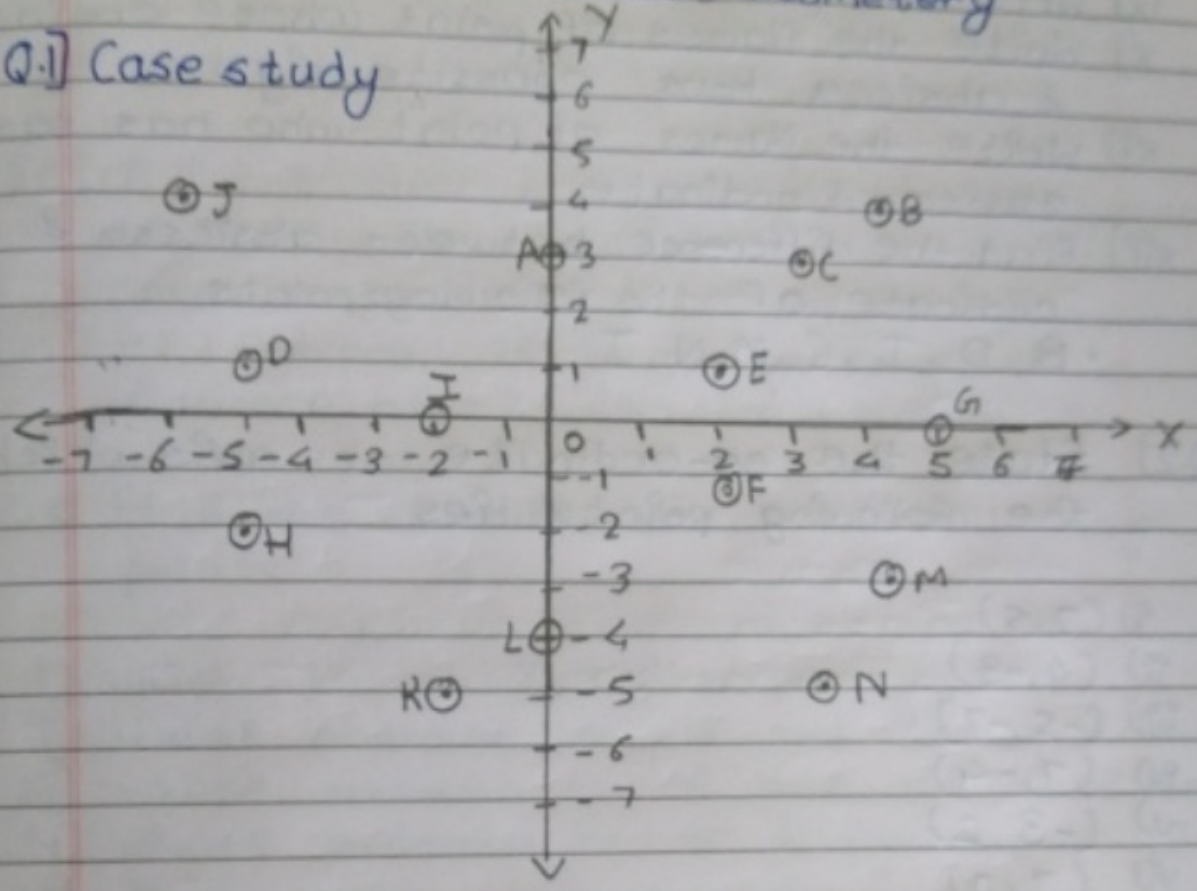
(5) $p(x)=lx+m$, $x=\frac{m}{l}$

* Revision *

Ch-3

Coordinate Geometery

Q.1] Case study



a] From the figure above answer the following.

i] Write the point whose absicca is zero

ii] Write the Point whose absicca is -5.

iii] Write the Point whose ordinate is 0.

iv] Write the Point and its co-ordinate which lies on y axis.

v] Write the Point which are in III quadrant.

vi] Write the differece between the absicssa of J & K

vii] What is the ordinate sum of the Point L & M

viii] Name the figure appears on joining A I L H
Also find its area.

ix] Write the co-ordinate of H & D.

x] Write the Names of point whose ordinate & abscca has opossite sign.

xi] Write the Names of point who has same abscca & ordinate.

xii] Find the difference betweea abscissa & ordinate of the following points.
- B, O, I, C, M, N, J

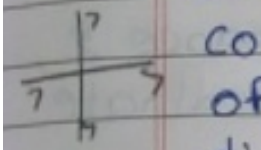
Q.2] State the co-ordinate or axis which the following points lies.

i) (2,5)
ii) (4,-3)
iii) (-5,-7)
iv) (7,-4)
v) (-3,2)
vi) (7,0)
vii) (-4,0)
viii) (0,7)
ix) (0,-4)
x) (0,0)

Q.3] Which of the following points lies on Y axis
A (1,1)
B (1,0)
C (0,1)

E (0, -1) ✓
F (-1, 0)
G (0, 5) ✓
H (-7, 0)
I (3, 3)

Q.4] A Point lie on x axis at the Distance of 7units from ~~x~~ centre axis. What are its co-ordinates? What will be the quardants of the point if it lie on Y axis At a distance of -7units from x axis?



Q.5] Find the co-ordinates of the following points.

i] Which lie on x & Y both axis.
ii] Whose ordnate is -4 and lies on Y axis.
iii] Whose absicssa is 5 and lies on x axis
iv] Whose ordnate is 5 & absicssa is -3
v] Also state the quardant.
v] Absicssa is -5 & obrinate is -3.
vi] Ordinate is 3 & absiccsa is -5.
vii] Ordinate is 5 & absicssa is 2 unit less the ordinate.
viii] Absicssa is Neither Positive Nor Negative & obrdinate is Double of absicca.
ix] The ordinate is first prime number & absicca first Compoiste number
x] Absicca is even prime number & ordinate is three less than twice the absicca.

Q6] Write true or false. Justify our answer.

i] The Point (3,0) lies in I qurdants

ii] The Point (1,-1) and (-1,1) are in the same qurdant.

iii] The co-ordinate of the point whose ordinate is $\frac{-1}{2}$ and abscca is 1 are $(-1, \frac{1}{2})$

iv] The point lie on Y axis at a distance 2 units from the x axis it co-ordinate (2,0).

v] (-1,7) is Point in a II qurdants.

vi] The absicssa of qurdant I & III are alway positive.

vii] The points in which absicssa and ordinate have different signs lies in I & II qurdant