

SRK DAV PUBLIC SCHOOL, SURIYA
SUMMER VACATION HOMEWORK (2021-22)

Std. X (A+B+C+D)

Sub-English

(A) long answer type Questions (5 marks type)

1. Discuss the theme of Faith in connection to the story "A Letter to God".
2. How are the two types of conflict illustrated in "A Letter to God".
3. Illustrate Mandela's understanding for freedom through examples from the text.
4. Write Critical Appreciation of the poem:
 - (a) Fire and Ice
 - (b) A Tiger in the Zoo
5. Do you think "A Triumph of Surgery" is a real life episode or mere fiction? Or is it a mixture of both?

(Grammar)

MODAL - kinds and uses

(Writing)

1. You are the Librarian of your school. You have been asked to place an order for some books for the school Library. Write a letter to the Sales Manager, Light House, Noida, placing an order for the books that you need.

(All the students must write in the Home work copy)

SUB: HINDI

- * दस मिश्र वाक्य को संयुक्त वाक्य में बदल।
- * दस संयुक्त वाक्य को मिश्र वाक्य में बदल।
- * दस कर्तृवाच्य साकर्मवाच्य में बदलें।
- * दस कर्तृवाच्य साभाव वाच्य में बदलें।
- * पांच औपचारिक और पांच अनौपचारिक पत्र लिखें।
- * दिवाली पर एक विज्ञापन बनाएं।
- * बाल दिवस पर एक संदृष्ट लिखें।

Sub-Science

PHYSICS

Solve NCERT Question of chapter -1

Biology

1 . Write +Learn NCERT question ans Of chapter Life process.

CHEMISTRY

Prepare questions and answers of Chemical reactions and Equations and Acids Bases and Salts

SUB-S.St.

GEOGRAPHY

- Q1. What are the three stages of resource planning? Describe it.
- Q2. Why is land decreasing under permanent pastures?
- Q3. What is net sown area? Which areas of India have more net sown area?
- Q4. Write physical and human factors which determine the use of land.
- Q5. Describe two major causes of land degradation in India.
- Q6. Suggest some conservative measures to check land degradation.
- Q7. What are the main factors responsible for soil formation?
- Q8. Define the National Forest Policy of India. According to this policy, how much of the country's area should be under forest, and why?
- Q9. Write the places along with the soil types that are found in India.
- Q10. On an outline map of India, show the following soils:
(i) Regur soil (ii) Alluvial soil (iii) Mountainous soil

POLITICAL SC.

- Q1. Explain briefly the need and significance of power sharing.
- Q2. Differentiate between Vertical division of power and Horizontal distribution of power.
- Q3. Do you think Panchayati Raj will strengthen the foundations of true democracy?
- Q4. Briefly mention the elements of the Belgian model of government.
- Q5. Which languages are spoken in Belgium?
- Q6. Mention any four reasons leading to dispute between the Sinhala and Tamil communities in Sri Lanka.
- Q7. What do you know about the background of the Sri Lankan Tamils?
- Q8. Is it correct if a majority community in a country rules? Do you agree with the statement? Give reasons.
- Q9. Sharing of power makes human beings more powerful. Justify it.
- Q10. What are the outcomes of this lesson?

History

Topic :- The rise of nationalism in Europe

Write 10 long ques/ans 15 short ques/ans
and all objective type(one word) ques/ans.

Sub-I.T.

Write & learn questions & answers of chapter 1, 2 & 6.

Sub-Maths

9. Prove that $\sqrt{2}$ is an irrational number. [CBSE (Delhi) 2009, CBSE (A.I.) 2008]
10. Prove that $\sqrt{5}$ is an irrational number. [CBSE (Delhi) 2009, CBSE (A.I.) 2008]
11. The decimal expansion of the rational number $\frac{43}{2^4 \times 5^3}$ will terminate after how many places of decimals? [CBSE (Delhi) 2009]
12. Find the HCF of the following pairs of numbers :
 (i) 100 and 190 (ii) 105 and 120 [CBSE 2009]
13. Show that $3 + \sqrt{2}$ is an irrational number. [CBSE 2009]
14. Prove that $2 - 3\sqrt{5}$ is an irrational number. [CBSE 2010]
15. Prove that $4 - 5\sqrt{2}$ is an irrational number. [CBSE 2010]
16. Prove that $2\sqrt{3} - 1$ is an irrational number. [CBSE 2010]
17. Has the rational number $\frac{441}{2^2 \times 5^7 \times 7^2}$ a terminating or a non-terminating decimal representation? [CBSE 2010]
18. Write whether $\frac{2\sqrt{45} + 3\sqrt{20}}{2\sqrt{5}}$ on simplification gives a rational or an irrational number. [CBSE 2010]
19. What can you say about the prime factorisation of the denominator of the rational number $27.\overline{142857}$? [CBSE 2010]
20. What is the HCF of smallest prime number and smallest composite number. [CBSE 2018]
21. Given that $\sqrt{2}$ is irrational, prove that $(5 + 3\sqrt{2})$ is an irrational number. [CBSE 2018]
22. Find HCF and LCM of 404 and 96 and verify that $\text{HCF} \times \text{LCM} = \text{product of the two given number}$. [CBSE 2018]

ANSWERS

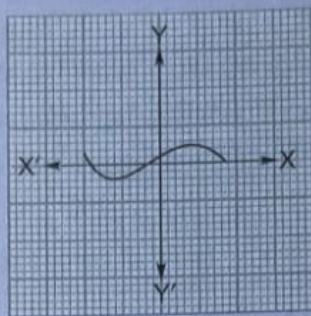
1. $q = 2^m \times 5^n$, where n and m are whole numbers. 5. 1.5 8. 42, 21
11. Four places of decimals 12. (i) 10, (ii) 15
17. Non-terminating 18. Rational number
19. Prime factorisation of the denominator contains factors other than 2 or 5.
20. 2 22. HCF = 4 and LCM = 9696

43. Find the values of a and b for which the following system of equations has infinitely many solutions :
- (i) $2x + 3y - 7 = 0$, $(a - 1)x + (a + 1)y = (3a - 1)$
 (ii) $2x + 3y = 7$, $(a - 1)x + (a + 2)y = 3a$ [CBSE 2010]
44. The sum of numerator and denominator of a fraction is 4 more than twice the numerator. If the numerator and denominator are increased by 3, they are in the ratio 2 : 3. Determine the fraction. [CBSE 2010]
45. The sum of the numerator and denominator of a fraction is 3 less than twice the denominator. If the numerator and denominator are decreased by 1, the numerator becomes half the denominator. Determine the fraction. [CBSE 2010]
46. The pair of linear equations $4x + 6y = 9$ and $2x + 3y = 6$ has :
 (a) no solution (b) many solutions
 (c) two solutions (d) one solution [CBSE 2011]
47. x takes 3 hours more than y to walk 30 km. But if x doubles his pace, he is ahead of y by $1\frac{1}{2}$ hours. Find their speeds of walking. [CBSE 2012]
48. A motor boat whose speed is 20 km/h in still water, takes 1 hour more to go 48 km upstream than to return downstream to the same spot. Find the speed of the stream. [CBSE 2012]
49. A train travels 180 km at a uniform speed. If the speed had been 9 km/hour more, it would have taken 1 hour less for the same journey. Find the speed of the train. [CBSE 2012]
50. For what value of k , the pair of equations $kx + 3y = k - 3$, $12x + ky = k$ has unique solution. [CBSE 2012]
51. Solve : $\frac{2}{x} + \frac{3}{y} = 13$ and $\frac{5}{x} - \frac{4}{y} = -2$ $x, y \neq 0$. [CBSE 2012]
52. The difference of two natural numbers is 5 and the difference of their reciprocals is $\frac{1}{10}$. Find the numbers. [CBSE 2013]
53. A motor boat, whose speed is 24 km/h in still water, takes 1 hour more to go 32 km upstream than to return downstream to the same spot. Find the speed of the stream. [CBSE 2013, 2016]
54. 150 workers were engaged to finish a piece of work in a certain number of days. Four workers dropped the second day, four more workers dropped the third day and so on. It took 8 more days to finish the work. Then find the number of days in which the work was completed. [CBSE 2014]
55. The numerator of a fraction is 3 less than its denominator. If 2 is added to both the numerator and the denominator, then the sum of the new fraction and original fraction is $\frac{29}{20}$. Find the original fraction. [CBSE 2015]
56. A train travels at a certain average speed for a distance of 54 km and then travels a distance of 63 km at an average speed of 6 km/h more than the first speed. If it takes 3 hours to complete the total journey, what is its first speed? [CBSE (Delhi) 2015]
57. The time taken by a person to cover 150 km was $2\frac{1}{2}$ hours more than the time taken in the return journey. If he returned at a speed of 10 km/hour more than the speed while going, find the speed per hour in each direction. [CBSE (Foreign) 2016]
58. A two digit number is four times the sum of the digits. It is also equal to 3 times the product of digits. Find the number. [CBSE (Foreign) 2016]
59. Speed of a boat in still water is 15 km/h. It goes 30 km upstream and returns back at the same point in 4 hours 30 minutes. Find the speed of the stream. [CBSE (Delhi) 2017]
60. A takes 6 days less than B to do a work. If both A and B working together can do it in 4 days, how many days will B take to finish it? [CBSE (AI) 2017]

4. Draw the graphs of the following equations on the same graph paper :
 $2x + 3y = 12$, $x - y = 1$
 Find the coordinates of the vertices of the triangle formed by the two straight lines and the y-axis. [CBSE 2001]
5. Find the value of k for which each of the following system of equations have infinitely many solutions :
 (i) $x + (k + 1)y = 4$, $(k + 1)x + 9y = 5k + 2$ (ii) $kx + 3y = 2k + 1$, $2(k + 1)x + 9y = 7k + 1$
 (iii) $2x + (k - 2)y = k$, $6x + (2k - 1)y = 2k + 5$ [CBSE 2000C]
6. A man travels 370 km partly by train and partly by car. If he covers 250 km by train and the rest by car, it takes him 4 hours. But, if he travels 130 km by train and the rest by car, he takes 18 minutes longer. Find the speed of the train and that of the car. [CBSE (A.I.) 2001]
7. The sum of a two-digit number and the number obtained by reversing the order of its digits is 121. If the digits differ by 3, find the number. [CBSE (Foreign) 2002]
8. Draw the graph of $x - y + 1 = 0$ and $2x + y - 10 = 0$. Calculate the area bounded by these lines and x-axis. [CBSE (Delhi) 2002]
9. Two places A and B are 120 km apart from each other on a highway. A car starts from A and another from B at the same time. If they move in the same direction, they meet in 6 hours and if they move in opposite directions, they meet in 1 hour and 12 minutes. Find the speeds of cars. [CBSE (A.I.) 2002]
10. For what values of a and b , the following system of linear equations have an infinite number of solutions : $(2a - 1)x - 3y = 5$, $3x + (b - 2)y = 3$. [CBSE (Delhi) 2002C]
11. Solve the following system of linear equations graphically : $2x - y - 4 = 0$, $x + y + 1 = 0$. Find the points where the lines meet y-axis. [CBSE 2002C]
12. Draw the graph of $2x + y = 6$ and $2x - y + 2 = 0$. Shade the region bounded by these lines and x-axis. Find the area of the shaded region. [CBSE 2002]
13. Solve the following system of linear equations graphically : $2x - 3y = 1$; $3x - 4y = 1$. Does the point (3, 2) lie on any of the lines ? Write its equation. [CBSE (Delhi) 2003]
14. The sum of two numbers a and b is 15 and the sum of their reciprocals $\frac{1}{a}$ and $\frac{1}{b}$ is $\frac{3}{10}$. Find the numbers a and b . [CBSE (Delhi) 2003]
15. For what value of a , the system of linear equations $ax + 3y = a - 3$, $12x + ay = a$ have no solution. [CBSE (Delhi) 2003, 2009]
16. Find the value of k for which the following system of linear equations have infinite number of solutions : $x + (k + 1)y = 5$, $(k + 1)x + 9y = 8k - 1$. [CBSE (A.I.) 2003]
17. Solve the following system of linear equations :
 $2(ax - by) + (a + 4b) = 0$, $2(bx + ay) + (b - 4a) = 0$. [CBSE (Delhi) 2004]
18. Solve for x and y : $\frac{b}{a}x + \frac{a}{b}y = a^2 + b^2$, $x + y = 2ab$. [CBSE (Delhi) 2004 C]
19. If $(x + 2)$ is a factor of $x^3 + ax^2 + 4bx + 12$ and $a + b = -4$, find the values of a and b . [CBSE (Delhi) 2004 C]
20. The monthly incomes of A and B are in the ratio 4 : 3 and their monthly expenditures are in the ratio of 13 : 9. If each saves ₹ 1500 per month, find the monthly income of each. [CBSE (A.I.) 2004 C]
21. Solve the following system of linear equations : $ax + by = a - b$, $bx - ay = a + b$. [CBSE (Delhi) 2005]
22. Solve for x and y : $\frac{ax}{b} - \frac{by}{a} = a + b$, $ax - by = 2ab$. [CBSE (Delhi) 2006, 2009]
23. Solve for x and y : $47x + 31y = 63$, $31x + 47y = 15$. [CBSE (Delhi) 2006]

Previous Years' Board Paper Questions

1. Write the zeroes of the polynomial $x^2 + 2x + 1$. [CBSE (Delhi) 2008]
2. Find the zeroes of the quadratic polynomial $6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the coefficients of the polynomial. [CBSE (Delhi) 2008]
3. Write the zeroes of the polynomial $x^2 - x - 6$. [CBSE (Delhi) 2008]
4. Write a quadratic polynomial, the sum and product of whose zeroes are 3 and -2 respectively. [CBSE (Delhi) 2008]
5. Find the zeroes of the quadratic polynomial $5x^2 - 4 - 8x$ and verify the relationship between the zeroes and the coefficients of the polynomial. [CBSE (Delhi) 2008]
6. Write the number of zeroes of the polynomial $y = f(x)$ whose graph is given in the figure. [CBSE (A.I.) 2008]



7. Find the quadratic polynomial sum of whose zeroes is 8 and their product is 12. Hence, find the zeroes of the polynomial. [CBSE (A.I.) 2008]
8. If one zero of the polynomial $(a^2 + 9)x^2 + 13x + 6a$ is reciprocal of the other, find the value of a . [CBSE (A.I.) 2008]
9. If the product of zeroes of the polynomial $ax^2 - 6x - 6$ is 4, find the value of a . [CBSE (A.I.) 2008]
10. Find all the zeroes of the polynomial $x^4 + x^3 - 34x^2 - 4x + 120$, if two of its zeroes are 2 and -2 . [CBSE (Foreign) 2008]
11. Find all the zeroes of the polynomial $2x^4 + 7x^3 - 19x^2 - 14x + 30$, if two of its zeroes are $\sqrt{2}$ and $-\sqrt{2}$? [CBSE (Foreign) 2008]
12. Write the zeroes of the polynomial $x^2 - x - 6$. (CBSE 2008)
13. If $(x + a)$ is a factor of $2x^2 + 2ax + 5x + 10$, find a . (CBSE 2008)
14. For what value of k , (-4) is a zero of the polynomial $x^2 - x - (2k + 2)$? [CBSE (Delhi) 2009]
15. If the polynomial $6x^4 + 8x^3 + 17x^2 + 21x + 7$ is divided by another polynomial $3x^2 + 4x + 1$, the remainder comes out to be $(ax + b)$, find a and b . [CBSE (Delhi) 2009]
16. For what value of p , (-4) is a zero of the polynomial $x^2 - 2x - (7p + 3)$? [CBSE (Delhi) 2009]
17. If the polynomial $x^4 + 2x^3 + 8x^2 + 12x + 18$ is divided by another polynomial $(x^2 + 5)$, the remainder comes out to be $(px + q)$. Find the values of p and q . [CBSE (Delhi) 2009]
18. Find all the zeroes of the polynomial $2x^3 + x^2 - 6x - 3$, if two of its zeroes are $-\sqrt{3}$ and $\sqrt{3}$. [CBSE 2009]
19. Find all the zeroes of the polynomial $x^3 + 3x^2 - 2x - 6$, if two of its zeroes are $-\sqrt{2}$ and $\sqrt{2}$. [CBSE 2009]
20. If α, β are the zeroes of a polynomial such that $\alpha + \beta = -6$, and $\alpha\beta = -4$, then write the polynomial. [CBSE 2010]

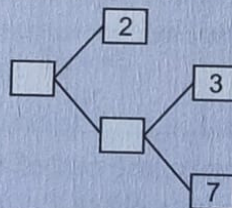
21. If α, β are the zeroes of the polynomial $2y^2 + 7y + 5$, write the value of $\alpha + \beta + \alpha\beta$.
[CBSE 2010]
22. For what value of k , is 3, a zero of the polynomial $2x^2 + x + k$?
[CBSE 2010]
23. For what value of k , is -3 , a zero of the polynomial $x^2 + 11x + k$?
[CBSE 2010]
24. For what value of k , is -2 , a zero of the polynomial $3x^2 + 4x + 2k$?
[CBSE 2010]
25. What must be subtracted from the polynomial $8x^4 + 14x^3 + x^2 + 7x + 8$ so that the resulting polynomial is exactly divisible by $4x^2 - 3x + 2$?
[CBSE 2011]
26. The sum and the product of the zeroes of a quadratic polynomial are $-\frac{1}{2}$ and $\frac{1}{2}$ respectively, then the polynomial is:
(a) $2x^2 + x + 1$ (b) $2x^2 - x + 1$ (c) $2x^2 - x - 1$ (d) $2x^2 + x - 1$
[CBSE (Foreign) 2012]
27. Find all zeroes of the polynomial $(2x^4 - 9x^3 + 5x^2 + 3x - 1)$ if two of its zeroes are $(2 + \sqrt{3})$ and $(2 - \sqrt{3})$.
[CBSE 2018]

ANSWERS

1. $x = -1$ 2. $x = -\frac{1}{3}$ and $x = \frac{3}{2}$ 3. 3 and -2 4. $x^2 - 3x - 2$
5. $x = -\frac{2}{5}$ and $x = 2$ 6. 3 7. $(6, 2), x^2 - 8x + 12$
8. $a = 3$ 9. $a = -\frac{3}{2}$ 10. 2, $-2, -6$ and 5 11. $\sqrt{2}, -\sqrt{2}, -5$ and $\frac{3}{2}$
12. 3, -2 13. 2 14. $k = 9$ 15. $a = 1$ and $b = 2$
16. $p = 3$ 17. $p = 2$ and $q = 3$ 18. $-\sqrt{3}, \sqrt{3}, -\frac{1}{2}$ 19. $-\sqrt{2}, \sqrt{2}, -3$
20. $f(x) = x^2 + 6x - 4$ 21. -1 22. -21
23. 4 24. -2 25. $6x + 2$ 26. (a)
27. $-\frac{1}{2}$ and 1

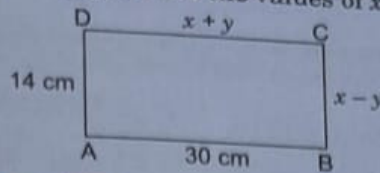
Previous Years' Board Paper Questions

1. If $\frac{p}{q}$ is a rational number ($q \neq 0$), what is condition of q so that the decimal representation of $\frac{p}{q}$ is terminating?
[CBSE (Delhi) 2008]
2. Show that $(5 - 2\sqrt{3})$ is an irrational number.
[CBSE (Delhi) 2008, 2009]
3. Show that $(2 - \sqrt{3})$ is an irrational number.
[CBSE (Delhi) 2008]
4. Show that $(5 + \sqrt{2})$ is an irrational number.
[CBSE (Delhi) 2008]
5. Write a rational number between $\sqrt{2}$ and $\sqrt{3}$.
[CBSE (A.I.) 2008]
6. Prove that $\sqrt{3}$ is an irrational number.
[CBSE (Delhi) 2009, CBSE (A.I.) 2008]
7. Use Euclid's Division Lemma to show that the square of any positive integer is either of the form $3m$ or $(3m + 1)$ for some integer m .
[CBSE (Foreign) 2008, CBSE (A.I.) 2008]
8. Complete the missing entries in the following factor tree.
[CBSE (Foreign) 2008]



61. In given figure, ABCD is a rectangle. Find the values of x and y .

[CBSE 2018]



62. A motor boat whose speed is 18 km/hr in still water takes 1 hr more to go 24 km upstream than to return downstream to the same spot. Find the speed of the stream. [CBSE 2018]

Or

A train travels at a certain average speed for a distance of 63 km and then travels at a distance 72 km at an average speed of 6 km/hr more than its original speed. If it takes 3 hours to complete total journey, what is the original average speed? [CBSE 2018]

ANSWERS

1. (i) $x = -2, y = 3$; (ii) $x = 2, y = -3$
2. (i) $x = 4, y = 3, (0, 11), (0, -1)$; (ii) $x = 3, y = 2, (0, 3.5), (0, -4)$
3. (i) $(0, 0), (2, 4), (3, 3)$; (ii) $(0, 0), (4, 4), (6, 2)$
4. $x = 3, y = 2; (0, 4), (0, -1), (3, 2)$
5. (i) $k = 2, (ii) k = 2, (iii) k = 5$
6. Speed of train = 100 km/h, Speed of car = 80 km/h
7. 74 or 47
8. 12 sq. units
9. 60 km/h, 40 km/h
10. $a = 3, b = \frac{1}{5}$
11. $x = 1, y = -2, (0, -4), (0, -1)$
12. 8 sq. units
13. $(-1, -1), \text{Yes}, 3x - 4y = 1$
14. When $a = 5, b = 10$; When $a = 10, b = 5$
15. $a = -6$
16. $k = 2$
17. $x = \frac{-1}{2}, y = 2$
18. $x = y = ab$
19. $a = -3, b = -1$
20. A's = ₹ 8000, B's = ₹ 6000
21. $x = 1, y = -1$
22. $x = b, y = -a$
23. $x = 2, y = -1$
24. Vertices of the triangle are $(-3, 0), (2, 0), (3, 4)$
25. 57
26. $(-3, 0), (4, 0), (-1, 4)$
27. $x = a^2, y = -b^2$
28. Cost of table = ₹ 700, Cost of chair = ₹ 200 Or $(0, 4), (3, 2), (0, -5)$
29. $\left(x = \frac{3}{2}, y = \frac{2}{3}\right)$ or $(x = 1, y = -4)$
30. $x = 1, y = 2$
31. $x = 3, y = 2$
32. $(0, 2)$ and $(0, -4)$
33. $(0, 5), (0, -5)$
34. $x = a + b, y = \frac{-2ab}{a + b}$
35. $x = 1$ and $y = 2$
36. $(2, 0), (6, 0)$
37. $x = 4, y = 5$
38. 60 km/h, 40 km/h
39. Infinite
40. Infinite
41. $x = 2, y = 2$
42. $x = y = ab$
43. (i) $a = 5, (ii) a = 7$
44. $\frac{5}{9}$
45. $\frac{4}{7}$
46. a
47. $\frac{10}{3}$ km/h, 5 km/h
48. 4 km/h
49. 36 km/h
50. $k \neq \pm 6$
51. $x = \frac{1}{2}, y = \frac{1}{3}$
52. 10 and 5
53. 8 km/h
54. 25 days
55. $\frac{7}{10}$
56. 36 km/h
57. 30 km/h and 20 km/h
58. 24
59. 5 km/h
60. 12 days
61. $x = 22, y = 8$
62. 6 km/hr or 42 km/h

24. Draw the graphs of the equations : $4x - y - 8 = 0$, $2x - 3y + 6 = 0$.
Also, determine the vertices of the triangle formed by the lines and x -axis.
[CBSE (Delhi) 2006]
25. The sum of the digits of a two-digit number is 12. The number obtained by interchanging the two digits exceeds the given number by 18. Find the number. [CBSE (A.I.) 2006]
26. Draw the graphs of the following equations : $2x - y + 6 = 0$ and $4x + 5y - 16 = 0$.
Also, determine the coordinates of the vertices of the triangle formed by these lines and the x -axis.
[CBSE (A.I.) 2006]
27. Solve the system of equations for x : $\frac{b^2x}{a} - \frac{a^2y}{b} = ab(a + b)$ and $b^2x - a^2y = 2a^2b^2$.
[CBSE (Foreign) 2006]
28. A man sold a table and a chair together for ₹ 850 at a loss of 10% on the table and a gain of 10% on the chair. By selling them together for ₹ 950, he would have made a gain of 10% on the table and a loss of 10% on the chair. Find the cost price of each.
[CBSE (Foreign) 2006]

Or

Draw the graphs of the following equations : $2x + 3y - 12 = 0$ and $7x - 3y - 15 = 0$.
Determine the coordinates of the vertices of the triangle formed by the lines and the y -axis.
[CBSE (Foreign) 2006]

29. Solve for x and y : $8x - 9y = 6xy$, $10x + 6y = 19xy$.

Or

Solve for x and y : $4x + \frac{y}{3} = \frac{8}{3}$, $\frac{x}{2} + \frac{3y}{4} = \frac{-5}{2}$. [CBSE (A.I.) 2007]

30. Solve the following system of equations graphically : $2x + 3y = 8$, $x + 4y = 9$.
[CBSE (Delhi) 2007]
31. Solve the following system of linear equations graphically : $2x + 3y = 12$, $2y - 1 = x$.
[CBSE (A.I.) 2007]
32. Represent the following pair of equations graphically and write the coordinates of points where the lines intersect y -axis, $x + 3y = 6$, $2x - 3y = 12$. [CBSE (Foreign) 2008]
33. Represent the following system of linear equations graphically. From the graph, find the points where the lines intersect y -axis, $3x + y - 5 = 0$, $2x - y - 5 = 0$. [CBSE (Delhi) 2008]
34. Solve for x and y : $(a - b)x + (a + b)y = a^2 - 2ab - b^2$, $(a + b)(x + y) = a^2 + b^2$.
[CBSE (A.I.) 2008]
35. Solve for x and y : $37x + 43y = 123$, $43x + 37y = 117$. [CBSE (A.I.) 2008]
36. Represent the following system of linear equations graphically. From the graph, find the points where the lines intersect x -axis : $2x - y = 12$, $4x - y = 8$. [CBSE (A.I.) 2008]
37. Solve the following pair of equations : $\frac{5}{x-1} + \frac{1}{y-2} = 2$ and $\frac{6}{x-1} - \frac{3}{y-2} = 1$.
[CBSE (Delhi) 2009]
38. Places A and B are 100 km apart on a highway. One car starts from A and another from B at the same time. If the cars travel in the same direction at different speeds, they meet in 5 hours. If they travel towards each other, they meet in 1 h. What are the speeds of two cars?
[CBSE 2009]
39. Write the number of solutions of the following pair of linear equations :
 $x + 2y - 8 = 0$, $2x + 4y = 16$ [CBSE 2009]
40. Show graphically : $2x + 3y = 6$, $4x + 6y = 12$ has infinitely many solutions. [CBSE 2010]
41. Solve : $\frac{4}{x} + 3y = 8$, $\frac{6}{x} - 4y = -5$. [CBSE 2010]
42. Solve : $\frac{b}{a}x + \frac{a}{b}y = a^2 + b^2$, $x + y = 2ab$. [CBSE 2010]