

REVISION PRACTICE ASSIGNMENT (RPA)**SUBJECT- Mathematics****SESSION-2020-21****CLASS-X****TOPIC: PAIR OF LINEAR EQUATIONS IN TWO
VARIABLE****Q1. Fill the blanks****(1 × 5 = 5 marks)**

- (a) The value of k for which the system of equations $2x + 3y = 5$ and $4x + ky = 10$ has infinite number of solution, is
(A) 0 (B) 1 (C) 3 (D) 6
- (b) The area of the triangle formed by the lines $y = x$, $x = 6$ and $y = 0$ is
(A) 36 sq. units (B) 18 sq. unit (C) 9 sq. units (D) 72 sq. units
- (c) The solution of equations $x + y = 14$ and $x - y = 4$, is
(A) $x = 7$, $y = 5$ (B) $x = 11$, $y = 7$ (C) $x = 9$, $y = 5$ (D) $x = 10$, $y = 4$
- (d) Sum of two numbers is 50 and their difference is 10, then the numbers are
(A) 30 and 20 (B) 24 and 14 (C) 12 and 2 (D) none of these
- (e) If the pair of equations $2x + 2y = 5$ and $5x + \frac{15}{2}y = k$ represent two coincident lines, then the value of k is;
(A) - 5 (B) $\frac{-25}{2}$ (C) $\frac{25}{2}$ (D) $\frac{-5}{2}$

Q2. Solve the following:**(1 × 5 = 5 marks)**

- (a) Write the condition so that $a_1x + b_1y = c_1$ and $a_2x + b_2y = c_2$ have unique solution
- (b) Find the value of k for which $x + 2y = 5$, $3x + ky + 15 = 0$ is inconsistent.
- (c) Express y in terms of x in the equation $3x - 7y = 10$
- (d) Solve the pair of linear equation: $3x - y = 3$; $7x + 2y = 20$.
- (e) If $x = 3m - 1$ and $y = 4$ is a solution of the equation $x + y = 6$, then find the value of m.

Q3. Solve:

(2× 3 = 6 marks)

- (a) The sum of digits of a two digit number is 9.If 27 is subtracted from the number, the digits are reversed. Find the number.
- (b) Sum of ages of father and son is 40 years. If father's age is three times that of his son, find their respective ages
- (c) Solve the equations by using the method of cross multiplication:
 $x - y = 7$; $5x + 12y = 7$

Q4 Solve the pair of linear equations $x + 3y = 6$ and $2x - 3y = 12$ graphically. Also find the area of the triangle formed by the lines representing the given equations with y-axis (4×1 = 4 marks)