the fraction.

Q.12 Five years ago, Nuri was thrice as old as Sonu. Ten years later, Nuri will be twice as old as Sonu. How old are Nuri & Sonu? (3)

Q.13 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 car travels in the same direction at different speeds, they meet in 5 hours. If they travels towards each other, they meet in 1 hour. What are the speeds of two cars? (3)

Q.14 The area of a rectangle gets reduced by 9 square units, if its length is reduced by 5 units and breadth is increased by 3 units. If we increase the length by 3 units & breadth by 2 units the area increases by 67 square units. Find the dimensions of the rectangle. (4)

CLASS – 10th (30)

CHAPTER – 3

SUBJECT – MATHS

TIME: 1 HOUR M.M: 30

Q.1 The pair of linear equations $x+2y+5=0$ and $-3x+6y-1=0$ has

(a) unique solution (b) two solutions (c) infinite many soln (d) No soln.

Q.2 If $3x+4y=5$ and $6x+ky=9$ represent parallel lines then the value of k is

(a) $k=2$ (b) $k=8$ (c) $k=6$ (d) $k=4$

Q.3 If $2x+3y=15$ and $3x+2y=25$, then the value of $x-y$ is

(a) -10 (b) 8 (c) 10 (d) 8

Q.4 The pair of equations $3^{x+y}=81$, $3^{x-y}=27$ has

(a) no soln (b) infinite many soln (c) $x=\frac{7}{2}, y=-\frac{1}{2}$ (d) $x=3, y=4$

Q.5 The pair of equations $x=0$ and $x=-4$ has

(a) a unique soln (b) no soln (c) infinite many soln (d) $(0,0)$

Q.6 Find the value of k for which the eqn has infinite many solutions $2x+3y=7$, $(k+1)x+(2k-1)y=4k+1$ (2)

Q.7 Solve the system of equations graphically:

$2x+y=6$, $x-2y=-2$

Find the vertices of triangle formed by the above two lines and the x-axis. Also find the area of the triangle. (2)

Q.8 Solve the following system of linear equations.

$7x-2y=5$ and $8x+7y=15$. by elimination method (2)

Q.9 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 (3)

Q.10 The angles of a triangle are x, y and 40°. The difference between the two angles x and y is 30°. Find x and y. (3)

Q.11 A fraction becomes $\frac{1}{3}$ when 1 is subtracted from the numerator. It becomes $\frac{1}{4}$ when 8 is added to the denominator. Find (3)