Wednesday, May 17, 2023……. Assignment(20%)

1. find the distance between the two given points P(1, –5) and Q (7, 3)
2. Find the coordinates of the point R that divides the line segment with end- points P (8, 4) and Q(3, – 7) in the ratio 3:4.
3. Find the points that divide the line segment with end-points at P(4, –3) and Q (–6, 7) into three equal parts.
4. A line has one end points at P(4,3). If its midpoint M(1,-1), find another end point.
5. Find the distance between point P(–3, 2) and line L:5x + 4y − 3 = 0
6. Write the standard form of the equation of a circle with the given centre and radius. a C (–2, 3), r = 5.
7. Find the intersection of the circle with equation (x − 1)2 + (y + 1)2 = 25 with the lines 4x − 3y − 7 = 0
8. Find the coordinates of the centre and the radius for each of the circles whose equations are given. a) $(x-2)^2+(y-3)^2=7$ b) $x^2-y^2-8x+12y-12=0$
9. Find the vertex, focus and directrix of the given parabolas $(x+2)^2=4(y-6)$ and sketch the graphs of the parabolas.
10. Let A (0, 0), B (6, 0) and C (0, 4) be vertices of ΔABC. Then find the point of intersection of the medians of ΔABC.
11. If ABCD is a parallelogram with AB = 3x – 4, BC = 2x + 7 and CD = x + 18, what type of parallelogram is ABCD?
12. Find the length of a side and the perimeter of a regular quadrilateral with radius 7 units.
13. A circular tin is placed on a square. If a side of the square is congruent to the diameter of the tin, calculate the percentage of the square which remains uncovered. Give your answer correct to 2 decimal places.
14. ABXY is a parallelogram of area 18 cm2 , AB = 6 cm, AY = 4 cm and C is a point on YX or extended such that BC = 5 cm. Find: a) the area of Δ ABC b) the distance from B to AY .
    c)the distance from A to CB
15. If the measures of the interior angles of a hexagon are x , 2x , 60 , (x + 30) , (x – 10) and (x + 40) degree. Then find the value of x.