

1. Plot the graphs corresponding following eqn<sup>s</sup>
  - a.  $x - y/3 = 4$
  - b.  $x = y$
  - c.  $x = -y$
  - d.  $3y + x = 20$
2. Plot  $y = 5$  &  $x=2$  on both 1D and 2D axes.
3. If a cube's side and a sphere's radius are same then which one amongst them has lesser surface area.
4. If a square of side length 2cm is rotated about one of its side, calculate the volume of the shape thus obtained.
5. If a circle of radius 1cm is rotated along its diameter, calculate the volume of figure/shape thus obtained.
6. The mean of 10 observations was found to be 75. Later it was found that one of the observations was noted incorrect and it was removed. After removing the wrong observation the new mean was found to be 70.
  - a. Find out the value of incorrect observation.
  - b. Calculate new mean if that obs was replaced by value 7.
7. Five identical cuboids (10cmx15cmx8cm) were melted to form cylinders ( $h=7\text{cm}$ ,  $r=2\text{cm}$ ). Calculate, on base of given info, approx how many such cylinders can be made.
8. When an unbiased coin was tossed 100 times, a person got 69 heads and 31 tails. Find probability that in a toss the person got a tail.
9. Find mean, median & mode for following set of observations:  
10, 2, 20, 35, 7, 9, 0.1, 15, 0.4, 20
10. Find volume of a capsule of height 1cm and base radius 0.5cm. A capsule is comprised of cylinder surmounted by a hemisphere by both sides.