

# Contents

1	vectors algebra	1
1.1	2023 . . . . .	1



# Chapter 1

## vectors algebra

### 1.1. 2023

1. In what ratio, does x-axis divide the line segment joinin the points  $A(3, 6)$  and  $B(-12, -3)$  ?
  - (a) 1 : 2
  - (b) 1 : 4
  - (c) 4 : 1
  - (d) 2 : 1
2. The distance between the point  $(0, 2\sqrt{5})$  and  $(-2\sqrt{5}, 0)$  is
  - (a)  $2\sqrt{10}$  units
  - (b)  $4\sqrt{10}$  units
  - (c)  $2\sqrt{20}$  units
  - (d) 0 units
3. if  $(-5, 3)$  and  $(5, 3)$  are two vetices of an equilateral triangle, then co-ordinates of the third vertex, given that origin lies inside the triangle

(take  $\sqrt{3} = 1.7$ )

4. show that the points  $(-2, 3)$ ,  $(8, 3)$  and  $(6, 7)$  are the vertices of right-angled triangle
5. if  $Q(0, 1)$  is equidistant from  $P(5, -3)$  and  $R(x, 6)$ , find the value of  $x$
6. The distance of the point  $(-6, 8)$  from origin is :
  - (a) 6
  - (b)  $-6$
  - (c) 8
  - (d) 10
7. The points  $(-4, 0)$ ,  $(4, 0)$  and  $(0, 3)$  are the vertices of a:
  - (a) right triangle
  - (b) isosceles triangle
  - (c) equilateral triangle
  - (d) scalene triangle