```
(2) || v1 = 5 and || w1 = 3.
   (a) find smallest and largest values of 11v-1011.
     11 v- w112 = 11v112 + 11w112 - 2 11v11 11w11 coso
              = 5^2 + 3^2 - 2(5)(3) \cos \theta
               = 25+9-30 000
                value of cost =) (-1. to 1)
     when coso = -1 => 34 - 30(-1) = 64
       when cose = 1
                D) 34-30=4
         11 v-10112 = 64 ; 11 v-10112 = 4
             114-1011 = 8 114-10112 - 2
            les estiles
      Smallest and largest values of 11v-1511 are 2 & 8),
(b) Smallest and largest values of vius
       9200 11011 11VII = 00.V
              = 15 ceso _1 = 15
       Smallest and largest values of v. 10 = (-15, 15)
```

Man = 15 Min = -15