

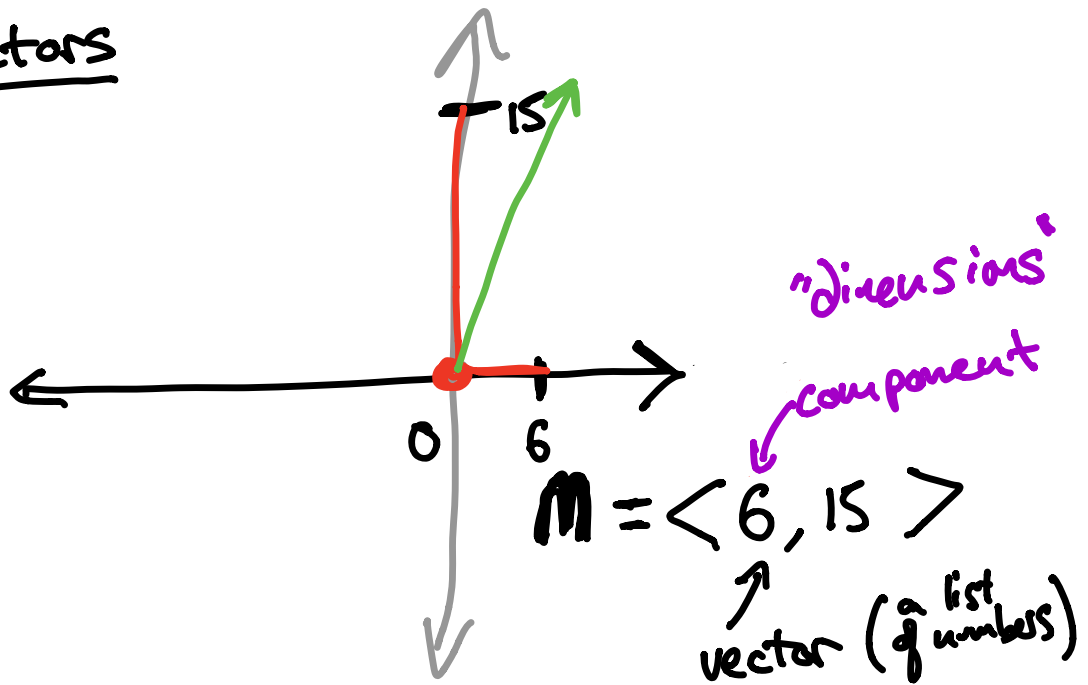
$$A \cup B = |A| + |B|$$

↑ ↑ ↑ ↑

Set Set integers greater than or equal to zero integers greater than or equal to zero

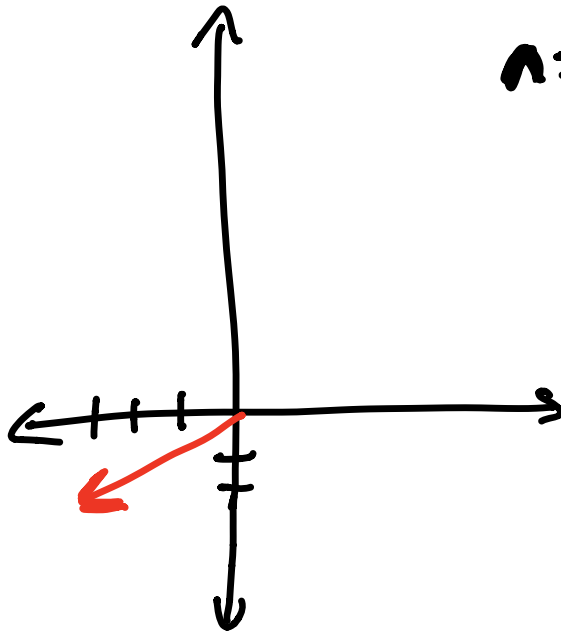
"type checking"

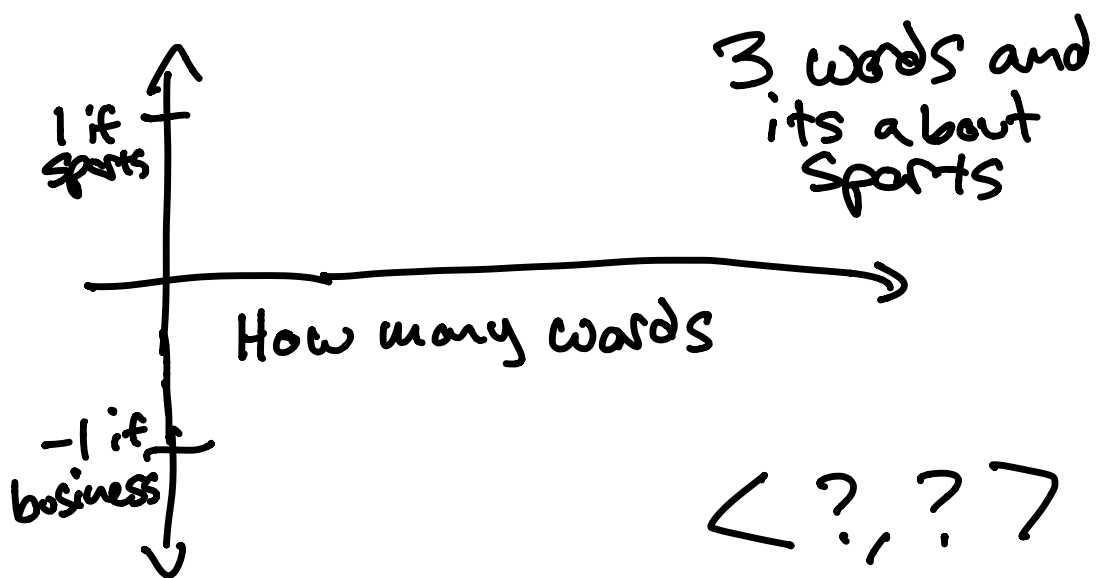
Vectors



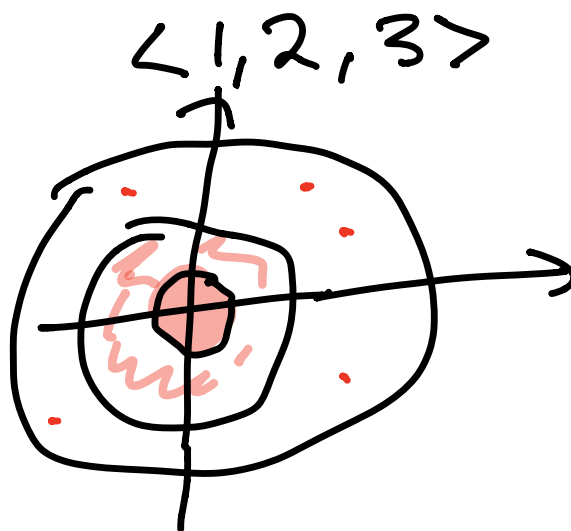
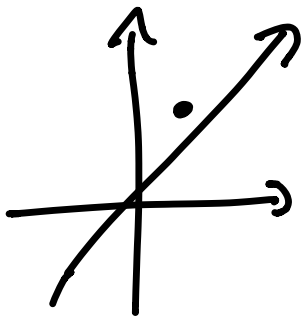
$$A = \langle -3, -2 \rangle$$

go three to
the left





Vectors always 2D?



$\langle 1, 2, 3, 4, 7, -2, 0 \rangle$

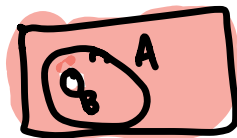
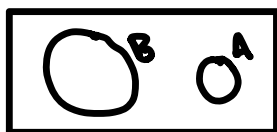
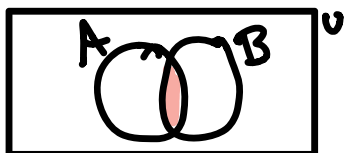
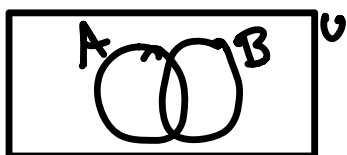
7 dimensions

300D
1000D

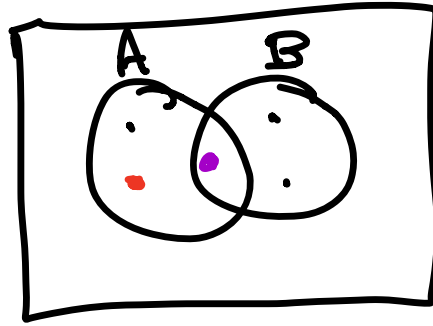
$$X = \langle 1, 17, -42 \rangle$$

$x_i = \text{the } i^{\text{th}} \text{ component of } X$

x_2



```
def intersection(A, B):  
    '''  
  
    '''  
    inBoth = []  
    for a in A:  
        if a in B:  
            inBoth.append(a)  
    return set(inBoth)
```



$inboth = [\cdot]$