Example of how to calculate weight variation

First get 20 tablets (they should be 20)

Second weigh each tablet and record the weight into table

|  |  |
| --- | --- |
| Tablet no | Weight  |
| Tab 1 | For ex 600 mg  |
| Tab2 | 604 |
| Tab 3 | 605 |
| Tab 4 | 595 |
| Tab 5 | 579 |
| And so on till you get tab 20  | And so on till you reach the last tablet  |
|  |  |
|  |  |
|  |  |

Third calculate the average of the (20) tablet by summing all the weights together then divide them by 20

Remember average =

$$\frac{sum of all the wights of tablets \left(tab 1+tab 2+tab 3………..+tab 20\right)}{20 }$$

After finding the average go and take a look at the weight of the tablet they are above 325 therefore the acceptable range is ± 5 ( revise your lab )

Now calculate the acceptable limits by the following

5 % means each 100 can have 5 more or less

So

100 5

600 X

Hint : 600 is the intended weight of the given tablet to be evaluated

Therefore 600 mg can have a range of ± 30 (نسبة وتناسب )

So the limit is going to be ( 600 -30 , 600 +30 )

 (570 – 630 )

Finally you have to check that none of the 20 tablets have a weight less than 570 or higher than 630 , if two fall out then they should be in not outside the double range ( doubling 30 will give you 60 )

**An example of thickness ,,,**

You measure the thickness of each tablet then calculate the average ,, for all of them of course

Remember the limit is ± 5 out of the average (revise your lab)

Lets say the average of tested tablets was 4 …… then 5 percent of 4 is 0.2 ! so the limit is going to be ( 4-0.2 , 4+0.2) which is = (3.8- 4.2)

No tablet of the tested tablets should fall out this range

If you have problems understanding this , please don’t hesitate asking me