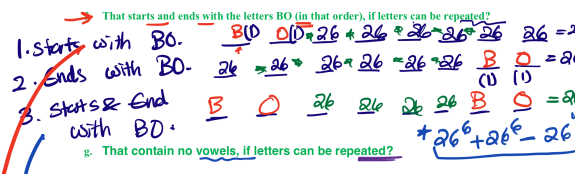

* clarification about this Question solved in class

T's answer should be fitted for Question asking if.

* Starts or ends with BO, so we calculate:
  1. ways if its starts with BO.
  2. ways if its ends with BO.
  3. ways if it Ends & starts with BO.
  4. substract to delete the reapted ways "In-common cases".

* However the answer should be :-

because Starts and ends.

$$B \times O \times 26 \times 26 \times 26 \times 26 \times B \times O = 26^4.$$

Q8. In a quiz that has ten multiple choice questions, each with three possible choices. What is the minimum number of students that must be in the section in order to guarantee that at least three students have exactly the same answers to the quiz? **(2 Marks)**

\# of ways to solve the 10 Questions: 3^{10}

$\underline{3} * \underline{3} * \underline{3} * \underline{3} * \underline{3} * \underline{3} * \underline{3} * \underline{3} * \underline{3} * \underline{3} = 3^{10}$

3 choices for Q_1 3 choices for Q_2 ....

* Those would be the No of boxes, so we can solve it as the answer key in Maryem solution or I can share with you a rule -

No. Student val

Find the smallest integer $\left\lceil \frac{N}{k} \right\rceil \geq r-1$

↳ boxes

$N = K(r-1)+1$

$= 3^{10}(3-1)+1$

↑ Answer sheet with same value

$$= 3^{10} \cdot 2 + 1$$

$$= 118099$$