P3. Explain De Morgan's l aw using a simple and relatable example by creating a rule using any of the provided variables.

As per the De Morgans law "**not (A and B)**" is equivalent to "**(not A) or (not B)**"
And also,
"**not (A or B)**" is equivalent to "**not(A) and not(B)**"

For this problem let's assume a simple rule:

For all participants, below the age of 18 and age above 80 receive "Decline" and rest other receive "Review"

Code snippet to check this condition in python:

```
if( not (age<18 and age>80)):
        return "Review"
else: return "Decline"
```

Mathematical expression would be:

!(age<18 && age>80) (1)

And as per the De Morgan's law the equivalent expression will be:

!(age<18 && age>80)
= age>=18 || age<=80 (2)

Let's take age of applicant = 17, expression 1 resolves to TRUE and so is expression 2.