

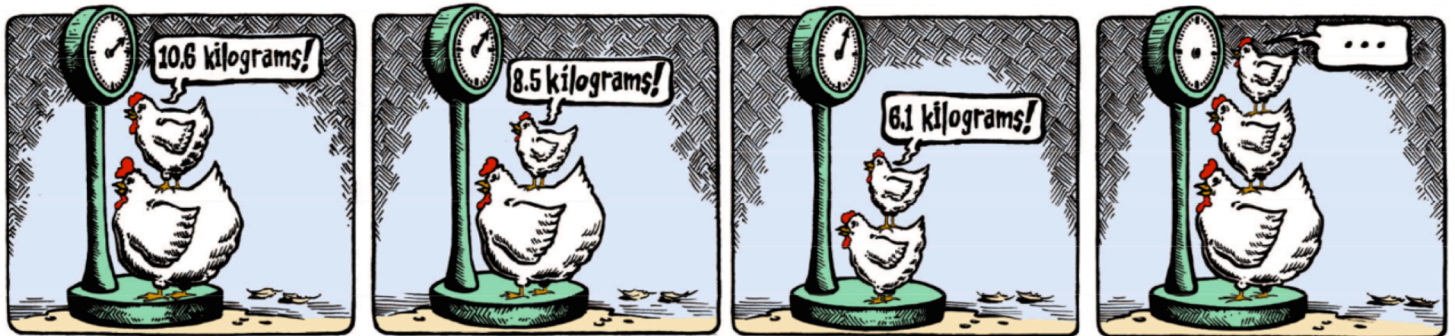
# DEPARTMENT OF MATHEMATICS

## PROBLEM SOLVING CHALLENGE

Q1.

*Junior Cycle*

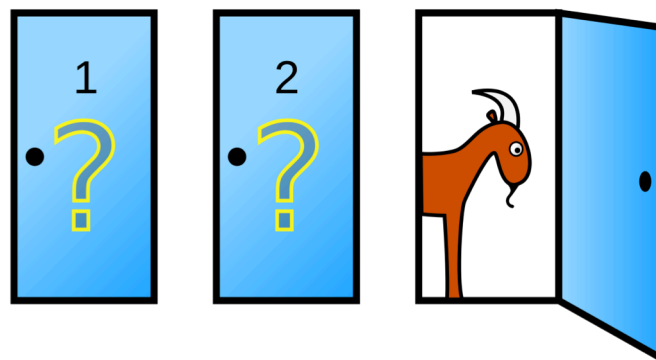
How heavy are all three chickens? How much does each chicken weigh?



Q2.

*Senior Cycle*

You are a participant in a game show and are shown three identical closed doors. Behind one door is a cash prize but behind the other two are goats! Your game show host asks you to choose one of the doors. You choose one, but you don't open your chosen door. Your game show host knows where the cash prize is. They now open one of the remaining doors with a goat behind it. Once the door is opened they ask you would you like to switch to the other unopened door or stick with the one you have chosen.



What should you do to maximise your chances of winning the cash prize, stay or switch?  
What is the probability of winning the cash prize? Explain your answer.

*Answers on an A4 sheet with your Name, Year and Class should be given to Mr. McManus or to Mr. McEvoy in room 33 before 4pm on Friday 29<sup>th</sup> of September.*

*Monthly Prize for both **Junior** and **Senior Cycle**.\**

**Good Luck.**

*Junior Cycle students answer question 1 only.*

*Senior Cycle students answer question 2 only*