

**Subject 7**  
**Probability**

Please don't write on the exam paper.

A gambling game consists in tossing a fair coin three times.  
If you throw two heads, you just get your stake money back.  
If you throw three heads, you receive double your stake money. Otherwise you lose.  
If you play once, calculate :

1. the probability of losing your money.
2. the probability of doubling your money.
3. the probability of just getting your money back.
4. the expectation of the value of your winnings, given a £1 stake.

*Stake money : mise*