Practice worksheet | Probability

Simulations of simple versus related compound events

Name: _____ Date: _____

6 questions | 13 marks

1. Why is $0\text{–}5 = \text{H}$ and $6\text{–}9 = \text{T}$ not a fair-coin model? [2 marks]

2. Map 0-4 to H and 5-9 to T. Convert 82, 16, 73, 40 into outcomes. [2 marks]

3. The simulated outcomes are TH, HT, TH, HH. Estimate $P(\text{exactly one head})$. [2 marks]

4. Give a random-digit model for success probability 0.3. [2 marks]

5. A without-replacement simulation selects the same labelled counter twice in a trial. What needs fixing? [2 marks]

6. An event occurs 198 times in 500 correctly modelled trials. Give an estimate and one limitation. [3 marks]