

A Murder has been committed at Castle Pentagon. Lord Mortimer's body was found in the Main Hallway of the Castle at 7pm Saturday 31st October. The Police have short listed 5 prime suspects and are now seeking the help of a team of Mathematicians to sort out the alibis. YOU are these Mathematicians. Sort out the information; formulate a solution; justify your reasoning. Who did kill Lord Mortimer? You decide.



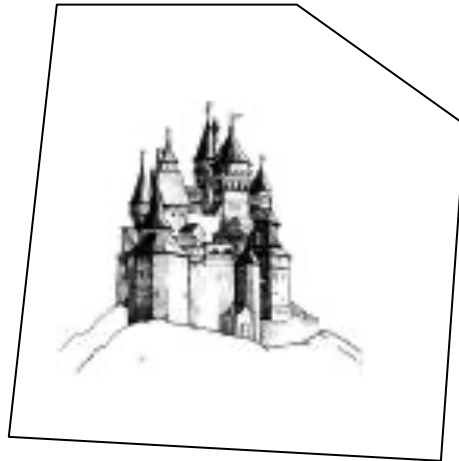
STRATEGY CARD 1



There are 5 gates into the grounds of Castle Pentagon – the north gate, the south gate, the east gate, the west gate and the north-east gate. These gates are marked on the sheets.


STRATEGY CARD 2

For each suspect think about the speed, time and distance of their journeys to the castle. Did they have enough time? Could they travel fast enough? Were they too far away?

The Map of Castle Pentagon





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<p><u>Melissa Killjoy</u> was seen at 2pm riding her bicycle. She  was on the bridleway, 4 miles from the Castle.</p>	<p>The bridleway leads directly to the Castle's north entrance.</p>	<p><u>Melissa Killjoy</u> stopped to repair a puncture at around 2:15pm which took 40 minutes.</p>
<p>It takes approximately 1 hour to cycle 8 miles.</p>		

<p><u>Charlotte</u> <u>Deadworthy</u> was seen on her moped on the B415 at 2:15pm, 15 miles from the Castle.</p>	<p>The B415 leads to the east entrance of the Castle.</p>	<p>The Castle's east entrance was blocked between 2:30pm and 2:40pm, as cows were herded for milking.</p>
<p>The average speed of a moped is 30mph.</p>		



<p>At 2:30pm <u>James Durnit</u> stopped for petrol in his Ferrari  at Plotter's garage on the A7.</p>	<p>Plotter's garage is approximately 80 miles from Castle Pentagon.</p>	<p><u>James Durnit</u> only had enough money to fill half a tank of petrol.</p>
<p>A Ferrari can easily reach speeds of 80mph on the A7.</p>		

<p><u>Malcolm Strange</u> Was seen ploughing his fields in suspect village at around 2:45pm.</p>	 <p>A dirt track links the farm at Suspect Village to the west Entrance of Castle Pentagon.</p>	<p>Suspect Village is 5 miles from the Castle.</p>
<p>The top speed of <u>Malcolm Strange's</u> tractor is 10mph.</p>		
