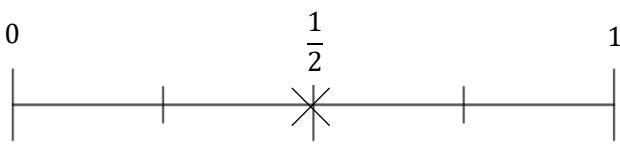
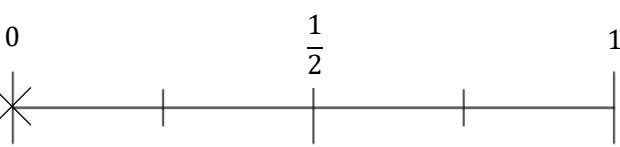
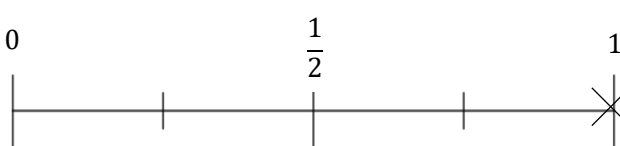
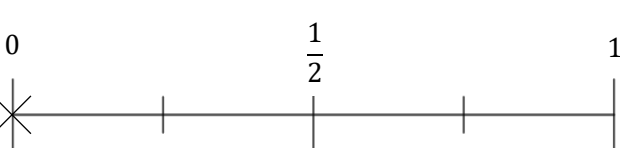
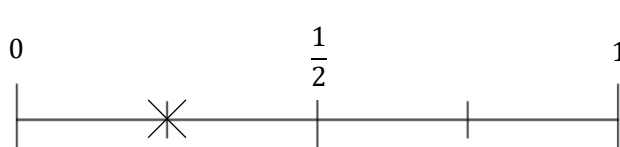
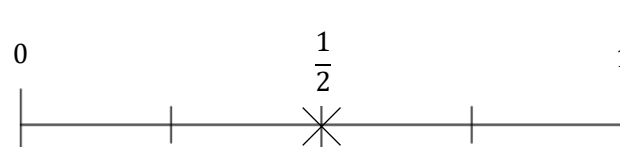
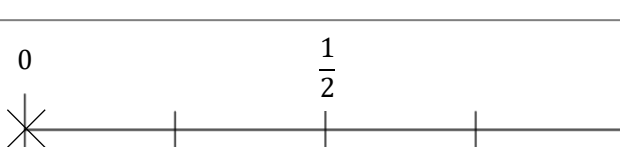


Simple Probability Mark Scheme		
1(a)	 <p>A horizontal number line from 0 to 1. There are tick marks at 0, <math>\frac{1}{2}</math>, and 1. A cross is drawn at the <math>\frac{1}{2}</math> position.</p>	[1] Correct position of cross
1(b)	 <p>A horizontal number line from 0 to 1. There are tick marks at 0, <math>\frac{1}{2}</math>, and 1. A cross is drawn very close to the 0 position.</p>	[1] Very close too or on 0
1(c)	 <p>A horizontal number line from 0 to 1. There are tick marks at 0, <math>\frac{1}{2}</math>, and 1. A cross is drawn at the 1 position.</p>	[1] Correct position of cross
1(d)	 <p>A horizontal number line from 0 to 1. There are tick marks at 0, <math>\frac{1}{2}</math>, and 1. A cross is drawn very close to the 0 position.</p>	[1] Correct position of cross
2(a)	 <p>A horizontal number line from 0 to 1. There are tick marks at 0, <math>\frac{1}{2}</math>, and 1. A cross is drawn between 0 and <math>\frac{1}{2}</math>.</p>	[1] Correct position of cross
2(b)	 <p>A horizontal number line from 0 to 1. There are tick marks at 0, <math>\frac{1}{2}</math>, and 1. A cross is drawn at the <math>\frac{1}{2}</math> position.</p>	[1] Correct position of cross
2(c)	 <p>A horizontal number line from 0 to 1. There are tick marks at 0, <math>\frac{1}{2}</math>, and 1. A cross is drawn very close to the 0 position.</p>	[1] Correct position of cross

Turn over ►

<b>3(a)</b>	$\frac{1}{6}$	[1]								
<b>3(b)</b>	$\frac{3}{6} = \frac{1}{2}$	[1] Mark awarded regardless of cancelling down								
<b>3(c)</b>	The dice is likely biased as would expect 100 6's	[1] Accept it could have happened by chance								
<b>4(a)</b>	<table border="1"> <tr> <td><b>Colour</b></td> <td>Blue</td> <td>Red</td> <td>Green</td> </tr> <tr> <td><b>Probability</b></td> <td><math>\frac{1}{3}</math></td> <td><b>0.5</b></td> <td><math>\frac{1}{6}</math></td> </tr> </table>	<b>Colour</b>	Blue	Red	Green	<b>Probability</b>	$\frac{1}{3}$	<b>0.5</b>	$\frac{1}{6}$	[1] Probability for red ( $1 - \frac{1}{3} - \frac{1}{6}$ )
<b>Colour</b>	Blue	Red	Green							
<b>Probability</b>	$\frac{1}{3}$	<b>0.5</b>	$\frac{1}{6}$							
<b>4(b)</b>	$180 \times \frac{1}{3} = 60$	[1]								
<b>4(c)</b>	Outcome due to chance	[1]								
<b>5</b>	$P(H, T, H) = 0.5 \times 0.5 \times 0.5 = 0.125$ $P(T, T, T) = 0.5 \times 0.5 \times 0.5 = 0.125$	[1] Calculation of the event probabilities								
	Ben is incorrect, the likelihood of both events is equal.	[1] Statement of why ben is incorrect								
<b>6</b>	Sonya is most likely to be the closest to the true probability because she did the most trials (120), compared to Clive and Lucy (30 and 60, respectively).	[1] Comment must be linked to number of repeats / sample size.								

END