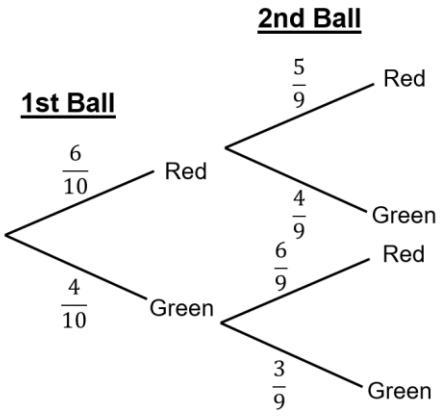
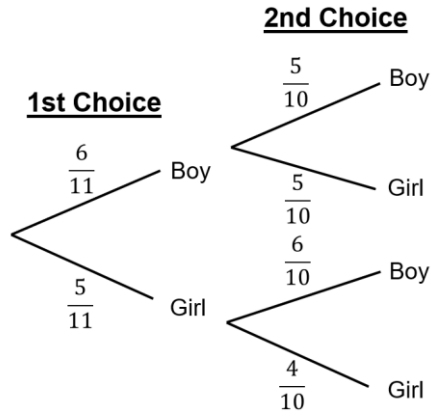
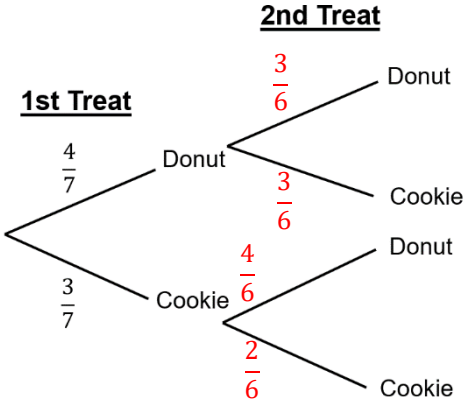
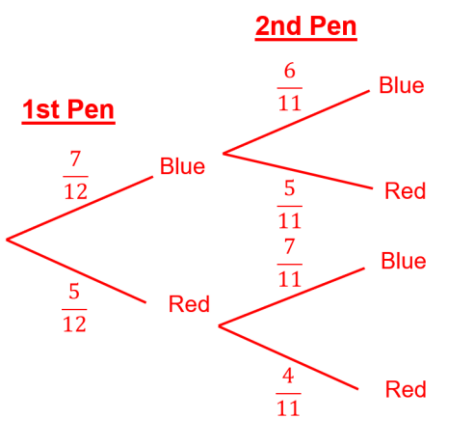
Fill in the Blanks | Tree Diagrams for Dependent Events

Question	Tree Diagram	Probability	
There are 6 red balls and 4 green balls in a bag. Two balls are chosen at random. Complete the tree diagram and calculate the probability of each outcome.		$P(RR) = \frac{6}{10} \times \frac{5}{9} =$	$\frac{30}{90}$
		$P(RG) = \frac{6}{10} \times \frac{4}{9} =$	$\frac{24}{90}$
		$P(GR) = \frac{4}{10} \times \frac{6}{9} =$	$\frac{24}{90}$
		$P(GG) = \frac{4}{10} \times \frac{3}{9} =$	$\frac{12}{90}$
There are 6 boys and 5 girls in a football team. Two team members are chosen at random. Complete the tree diagram and calculate the probability of each outcome.		$P(BB) = \frac{6}{11} \times \frac{5}{10} =$	$\frac{30}{110}$
		$P(BG) = \frac{6}{11} \times \frac{5}{10} =$	$\frac{30}{110}$
		$P(GB) = \frac{5}{11} \times \frac{6}{10} =$	$\frac{30}{110}$
		$P(GG) = \frac{5}{11} \times \frac{4}{10} =$	$\frac{20}{110}$
There are 4 donuts and 3 cookies in a tin. Riaz chooses two treats at random. Complete the tree diagram and calculate the probability of each outcome.		$P(DD) = \frac{4}{7} \times \frac{3}{6} =$	$\frac{12}{42}$
		$P(DC) = \frac{4}{7} \times \frac{3}{6} =$	$\frac{12}{42}$
		$P(CD) = \frac{3}{7} \times \frac{4}{6} =$	$\frac{12}{42}$
		$P(CC) = \frac{3}{7} \times \frac{2}{6} =$	$\frac{6}{42}$
There are 7 blue pens and 5 red pens in a pencil case. Two pens are chosen at random. Complete the tree diagram and calculate the probability of each outcome.		$P(BB) = \frac{7}{12} \times \frac{6}{11} =$	$\frac{42}{132}$
		$P(BR) = \frac{7}{12} \times \frac{5}{11} =$	$\frac{35}{132}$
		$P(RB) = \frac{5}{12} \times \frac{7}{11} =$	$\frac{35}{132}$
		$P(RR) = \frac{5}{12} \times \frac{4}{11} =$	$\frac{20}{132}$