|  |  |
| --- | --- |
| **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. |  | $$P\left(RR\right)= \frac{6}{10} × \frac{5}{9} =$$ | $$\frac{30}{90}$$ |
| $$P\left(RG\right)= \frac{6}{10} × \frac{4}{9} =$$ | $$\frac{24}{90}$$ |
| $$P\left(GR\right)= × =$$ |  |
| $$P\left(GG\right)= × =$$ |  |
| 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. |  | $$P\left(BB\right)= × =$$ |  |
| $$P\left(BG\right)= × =$$ |  |
| $$P\left(GB\right)= × =$$ |  |
| $$P\left(GG\right)= × = $$ |  |
| 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. |  | $$P\left(DD\right)= × =$$ |  |
| $$P\left(DC\right)= × =$$ |  |
| $$P\left(CD\right)= × =$$ |  |
| $$P\left(CC\right)= × =$$ |  |
| 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. |  | $$P\left(BB\right)=$$ |  |
| $$P\left(BR\right)=$$ |  |
| $$P\left(RB\right)=$$ |  |
| $$P\left(RR\right)=$$ |  |

|  |  |
| --- | --- |
| **Fill in the Blanks** | **Tree Diagrams for Dependent Events** |

|  |  |  |
| --- | --- | --- |
| **Question** | **Tree Diagram** | **Probability** |
| There are some white counters and some red counters in a bag. Two counters are taken from the bag at random. Complete the tree diagram and calculate the missing probabilities. | A diagram of different colors  AI-generated content may be incorrect. | $$P\left(WW\right)= × =$$ |  |
| $$P\left(WR\right)= × =$$ |  |
| $$P\left(RW\right)= × =$$ |  |
| $$P\left(RR\right)= \frac{5}{8} × \frac{4}{7} =$$ | $$\frac{20}{56}$$ |
| There are some apples and some oranges in a fruit bowl. Two pieces of fruit are chosen at random. Complete the tree diagram and calculate the missing probabilities. | A diagram of fruit types  AI-generated content may be incorrect. | $$P\left(AA\right)= × \frac{2}{9} =$$ |  |
| $$P\left(AO\right)= × =$$ |  |
| $$P\left(OA\right)= × =$$ |  |
| $$P\left(OO\right)= × = $$ |  |
| Milo has some black socks and some grey socks in a drawer. He chooses two socks at random. Draw a tree diagram and calculate the missing probabilities. |  | $$P\left(BB\right)= × =$$ |  |
| $$P\left(BG\right)= × \frac{5}{11} =$$ |  |
| $$P\left(GB\right)= × =$$ |  |
| $$P\left(GG\right)= × =$$ |  |
| Adrianna buys some sausage rolls and some cheese pasties from the bakery. She chooses two items at random to eat for lunch. Draw a tree diagram and calculate the missing probabilities. |  | $$P\left(SS\right)= × =$$ |  |
| $$P\left(SC\right)= × =$$ |  |
| $$P\left(CS\right)= × =$$ |  |
| $$P\left(CC\right)= × =$$ | $$\frac{12}{110}$$ |