**Probability - Dependent Events**

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| **1)** The tree diagram below shows the outcomes of choosing two marbles out of a jar that contains 3 purple marbles and 7 green marbles. Find the probability of that both marbles are purple.        http://www.mathster.com/course/simgs/33773496838_1.png | [1] |
| **2)** The tree diagram below shows the outcomes of choosing and eating two chocolates from a box containing 7 dark chocolates, 3 white chocolates and 4 milk chocolates. Find the probability of eating one white and one milk chocolate.        http://www.mathster.com/course/simgs/33773496838_2.png | [1] |
| **3)** The tree diagram below shows the outcomes of selecting three counters from a jar containing 4 green counters and 3 pink counters. Note that a counter is *not replaced* before the next is selected. Find the probability of picking three green counters.        http://www.mathster.com/course/simgs/33773496838_3.png | [1] |
| **4)** The tree diagram below shows the outcomes of choosing and eating three chocolates from a box containing 4 dark chocolates and 3 milk chocolates. Find the probability of eating at least one dark chocolate.        http://www.mathster.com/course/simgs/33773496838_4.png | [1] |
| **5)** A jar contains 5 purple marbles and 3 red marbles. James randomly selects 2 marbles at the same time.  Draw a tree diagram and use it to calculate the probability that both marbles are purple. | [1] |
| **6)** A box contains 7 milk chocolates, 4 nut chocolates and 6 raisin chocolates.  Draw a tree diagram and use it to calculate the probability of eating one nut and one raisin chocolate. | [1] |
| **7)** Joseph selected three counters from a box containing 6 white counters and 4 yellow counters. He did *not replaced* any of the balls before the next was selected.  Calculate the probability that he picked at least one white counter. | [1] |
| **8)** The outcomes of selecting three chocolates from a box containing 6 mint chocolates and 4 raisin chocolates without replacement.  Draw a tree diagram and use it to calculate the probability of picking three raisin chocolates. | [1] |

**Solutions for the assessment Probability - Dependent Events**

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| **1)** P(both marbles are purple) = 1/15 | **2)** P(one white and one milk chocolate) = 12/91 |
| **3)** P(3G) = 4/35 | **4)** P(at least one D) = 34/35 |
| **5)** P(both marbles are purple) = 5/14 http://www.mathster.com/course/simgs/33773496838_5.png | |
| **6)** P(one nut and one raisin chocolate) = 3/17 http://www.mathster.com/course/simgs/33773496838_6.png | |
| **7)** P(at least one W) = 29/30 http://www.mathster.com/course/simgs/33773496838_7.png | |
| **8)** P(3R) = 1/30 http://www.mathster.com/course/simgs/33773496838_8.png | |