**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 5 purple marbles and 4 red marbles. Find the probability of that both marbles are red.        http://www.mathster.com/course/simgs/96915251532_1.png | [1] |
| **2)** The tree diagram below shows the outcomes of choosing and eating two chocolates from a box containing 7 milk chocolates, 4 raisin chocolates and 3 white chocolates. Find the probability of eating one milk and one raisin chocolate.        http://www.mathster.com/course/simgs/96915251532_2.png | [1] |
| **3)** The tree diagram below shows the outcomes of selecting three balls from a box containing 4 pink balls and 3 white balls. Note that a ball is *not replaced* before the next is selected. Find the probability of picking at least one pink ball.        http://www.mathster.com/course/simgs/96915251532_3.png | [1] |
| **4)** The tree diagram below shows the outcomes of choosing and eating three chocolates from a box containing 4 milk chocolates and 6 dark chocolates. Find the probability of eating one dark and two milk chocolates.        http://www.mathster.com/course/simgs/96915251532_4.png | [1] |
| **5)** A jar contains 3 blue marbles and 6 orange marbles. Lola randomly selects 2 marbles at the same time.  Draw a tree diagram and use it to calculate the probability that both marbles are blue. | [1] |
| **6)** A box contains 5 raisin chocolates, 7 nut chocolates and 6 white chocolates.  Draw a tree diagram and use it to calculate the probability of eating one nut and one raisin chocolate. | [1] |
| **7)** Benjamin selected three beads from a box containing 5 red beads and 3 blue beads. He did *not replaced* any of the balls before the next was selected.  Calculate the probability that he picked three red beads. | [1] |
| **8)** The outcomes of selecting three chocolates from a box containing 6 nut chocolates and 4 raisin chocolates without replacement.  Draw a tree diagram and use it to calculate the probability of picking at least one nut chocolate. | [1] |

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

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| **1)** P(both marbles are red) = 1/6 | **2)** P(one milk and one raisin chocolate) = 4/13 |
| **3)** P(at least one P) = 34/35 | **4)** P(one D and two M) = 3/10 |
| **5)** P(both marbles are blue) = 1/12 http://www.mathster.com/course/simgs/96915251532_5.png | |
| **6)** P(one nut and one raisin chocolate) = 35/153 http://www.mathster.com/course/simgs/96915251532_6.png | |
| **7)** P(3R) = 5/28 http://www.mathster.com/course/simgs/96915251532_7.png | |
| **8)** P(at least one N) = 29/30 http://www.mathster.com/course/simgs/96915251532_8.png | |