

A.S.18: Conditional Probability: Know the definition of conditional probability and use it to solve for probabilities in finite sample spaces

- 1 A bag contains five green gumdrops and six red gumdrops. If Kim pulls a green gumdrop out of the bag and eats it, what is the probability that the next gumdrop she pulls out will be red?
 - 1) $\frac{5}{11}$
 - 2) $\frac{5}{10}$
 - 3) $\frac{6}{11}$
 - 4) $\frac{6}{10}$

- 2 Gabriella has 20 quarters, 15 dimes, 7 nickels, and 8 pennies in a jar. After taking 6 quarters out of the jar, what will be the probability of Gabriella randomly selecting a quarter from the coins left in the jar?
 - 1) $\frac{14}{44}$
 - 2) $\frac{30}{44}$
 - 3) $\frac{14}{50}$
 - 4) $\frac{20}{50}$

- 3 Some books are laid on a desk. Two are English, three are mathematics, one is French, and four are social studies. Theresa selects an English book and Isabelle then selects a social studies book. Both girls take their selections to the library to read. If Truman then selects a book at random, what is the probability that he selects an English book?

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1 ANS: 4 REF: 011308ia

2 ANS: 1

$$\frac{20 - 6}{(20 - 6) + 15 + 7 + 8} = \frac{14}{44}$$

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3 ANS:

$\frac{1}{8}$. After the English and social studies books are taken, 8 books are left and 1 is an English book.

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