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## Lessons 10.4-10.6

## MULTIPLE CHOICE

1. WORD GAME You and a friend are playing a word game that involves lettered tiles. The distribution of letters is shown below. You randomly draw 2 tiles without replacement. What is the probability (rounded to 3 decimal places) of getting 2 vowels? (Assume that Y is a consonant.) TEKS a. 1

| A | 9 | H | 2 | 0 | 8 | V | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B | 2 | 1 | 9 | P | 2 | W | 2 |
| C | 2 | J | 1 | Q | 1 | $X$ | 1 |
| D | 4 | K | 1 | R | 6 | $Y$ | 2 |
| E | 12 | L | 4 | S | 4 | Z | 1 |
| F | 2 | M | 2 | T | 6 |  | 2 |
| G | 3 | N | 6 | U | 4 | Blank |  |

(A) 0.112
(B) 0.142
(C) 0.174
(D) 0.178
2. MANUFACTURING A manufacturer makes briefcases with numbered locks. The locks can be set so that any one of 1000 different codes will open the briefcase. If 4 friends have briefcases from this manufacturer, what is the probability (rounded to 3 decimal places) that at least 2 of the 4 briefcases have the same code? TEKS a. 1
(F) 0.006
(G) 0.059
(H) 0.496
(J) 0.903
3. STUDENT SURVEY A survey finds that $61 \%$ of students in the United States like school, that $95 \%$ of students who like school plan to attend college, and that $70 \%$ of students who do not like school plan to attend college. What is the probability (rounded to 3 decimal places) that a randomly selected high school student in the United States plans to attend college? Use a probabilty tree diagram to find the answer. TEKS $a .1$
(A) 0.58
(B) 0.822
(C) 0.832
(D) 0.853
4. READING SURVEY According to a survey, $24 \%$ of U.S. adults say that reading is their favorite leisure activity. You randomly select 14 adults to survey. What is the probability (rounded to 3 decimal places) that at least 7 adults say reading is their favorite leisure activity? TEKS a. 1
(F) 0.008
(G) 0.031
(H) 0.971
(J) 0.992
5. MARKET TEST A computer software company is performing a market test on two versions, $A$ and $B$, for its new software program. Out of 250 people who view the versions, 85 like version A, 135 like version B, and 45 people like both versions. What is the probability that a person likes version A or version B? TEKS a. 1

(A) 0.66
(B) 0.68
(C) 0.7
(D) 0.88

GRIDDED ANSWER (1) (3) (4) (5) (6) (7) (8) (9)
6. LAWN MOWING The owner of a one-person lawn mowing business owns three old and unreliable riding mowers. As long as one of the mowers is working, the owner can stay productive. From past experience, the first mower is unusable $10 \%$ of the time, the second is unusable $8 \%$ of the time, and the third is unusable $18 \%$ of the time. Find the probability that all three mowers are unusable on a given day. Round your answer to the nearest thousandth. TEKS a. 1
7. BATTING AVERAGE About $31 \%$ of a softball player's at-bats are hits. You randomly select 15 of the player's at-bats. What is the most likely number of hits the player will have in those at-bats? TEKS a. 1


