## What Do the Police Put On a Bad Pig?

Cross out the box containing each correct answer. (If an answer appears more than once, it doesn't matter which one you cross out.) When you finish, write the letters from the remaining boxes in the spaces at the bottom of the page.
I. Find each probability if you spin both spinners.
(1) $P($ white,$A)$
(2) $P($ white,$B)$
(3) $P($ striped, $A)$
(4) $P$ (striped, $B$ )
(5) $P($ not striped, $A)$
(6) $P($ not striped, $B)$
(7) $P($ not white,$A)$
(8) $P($ not white, $B)$

II. Find each probability if you spin the spinner and roll the number cube.
(9) $P$ (blue, 2)
(10) $P$ (blue, not 2)
(11) $P($ yellow, even $)$
(12) $P$ (red, even)
(13) $P($ not blue, 5)
(14) $P($ not blue, odd)
(15) $\mathrm{P}($ red, 4$)$
(16) $P($ red, not 4$)$
III. Find each probability if you pick one marble, replace it, then pick a second marble.
(17) $P$ (black, white)
(18) $P$ (black, striped)
(19) $P($ white, striped $)$
(20) $P$ (not white, striped)
(21) $P$ (black, black)
(22) $P$ (striped, striped)
(23) $P$ (white, not white)
(24) $P$ (not white, not white)

IV. Solve.
(25) A test has two multiple choice questions, each with five choices. What is the probability of guessing the correct answer to both questions?
(26) One letter is randomly selected from the word MATH, and a second letter is randomly selected from the word JOKES. What is the probability that both letters are vowels?

| A | T | T | N | O | H | E | E | A | T | P | P | I | M | G | C | O |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{3}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{5}$ | $\frac{1}{6}$ | $\frac{1}{7}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{9}$ | $\frac{1}{10}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{15}$ | $\frac{1}{16}$ | $\frac{1}{18}$ | $\frac{1}{20}$ | $\frac{1}{24}$ |
| T | H | O | U | G | S | S | L | F | A | E | E | F | A | T | S | E |
| $\frac{1}{25}$ | $\frac{1}{36}$ | $\frac{2}{5}$ | $\frac{2}{7}$ | $\frac{2}{9}$ | $\frac{2}{15}$ | $\frac{2}{15}$ | $\frac{3}{8}$ | $\frac{3}{10}$ | $\frac{4}{9}$ | $\frac{4}{15}$ | $\frac{4}{15}$ | $\frac{5}{8}$ | $\frac{5}{12}$ | $\frac{5}{24}$ | $\frac{7}{15}$ | $\frac{8}{15}$ |

## What Do You Get if a Bunch of Bad Guys Fall in the Ocean?

Cross out the box containing each correct answer. (If an answer appears more than once, it doesn't matter which one you cross out.) When you finish, write the letters from the remaining boxes in the spaces at the bottom of the page.
I. Find each probability if you pick a card, do not replace it, then pick a second card.
(1) $P$ (black, then white)
(2) $P$ (black, then black)
(3) $P$ (white, then black)
(4) P (white, then white)

II. Each letter of the word BANANA is written on a card. Find each probability if you pick two cards without replacing the first.
(5) $P(B$, then $N)$
(6) $P(B$, then $A)$
(7) $P(N$, then $B)$
(10) $P(A$, then $N)$
(8) $P(N$, then $A)$
(9) $P(A$, then $B)$
(13) $P(B$, then $B)$
(11) $P(N$, then $N)$
(12) $P(A$, then $A)$

III. Find each probability if you pick a marble, do not replace it, then pick a second marble.
( $\mathrm{R}=$ red; $\mathrm{B}=$ blue; $\mathrm{G}=$ green)
(14) $P$ (blue, then green)
(15) $P$ (green, then red)
(16) P (green, then green)
(17) $P$ (green, then not green)
(18) $P($ red, then blue)
(19) $P$ (red, then not blue)
(20) $P$ (blue, then blue)
(21) $P$ (not blue, then not blue)

IV. Solve.
(23) There are 10 boxes in a grab bag. The boxes are identical except that 7 of them contain $\$ 20$ bills. A contest winner gets to pick two boxes from the grab bag. What is the probability of getting two $\$ 20$ bills?

| TH | AN | IT | IT | IT | PL | AC | ES | EY | EY | ON | ON | RI | DE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | $\frac{1}{3}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{6}$ | $\frac{1}{8}$ | $\frac{1}{9}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{14}$ | $\frac{1}{15}$ |
| DE | DE | SO | ME | ET | WA | TE | AM | LL | RS | VE | RY | ST | ST |
| $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{36}$ | $\frac{2}{5}$ | $\frac{3}{28}$ | $\frac{4}{9}$ | $\frac{5}{12}$ | $\frac{5}{14}$ | $\frac{5}{18}$ | $\frac{7}{15}$ | $\frac{7}{18}$ | $\frac{7}{36}$ | $\frac{15}{56}$ | $\frac{15}{56}$ |

