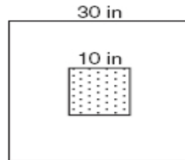1   The accompanying diagram shows a square dartboard. The side of the
    dartboard measures 30 inches. The square shaded region at the center has a
010634a   side that measures 10 inches. If darts thrown at the board are equally likely to
    land anywhere on the board, what is the theoretical probability that a dart does
    not land in the shaded region?

2   A square dartboard is represented in the accompanying diagram. The entire
    dartboard is the first quadrant from $x = 0$ to 6 and from $y = 0$ to 6. A triangular
010231a   region on the dartboard is enclosed by the graphs of the equations $y = 2$, $x = 6$,
    and $y = x$. Find the probability that a dart that randomly hits the dartboard will
    land in the triangular region formed by the three lines.