

$$1) \quad p(A) = \frac{32}{64} = \frac{1}{2}$$

$$2) \quad p(B) = \frac{16}{64} = \frac{1}{4}$$

$$3) \quad p(C) = \frac{28}{64} = \frac{14}{32} = \frac{7}{16}$$

$$④ \quad D = A \cap B$$

$$p(D) = \frac{8}{64} = \frac{1}{8}$$

$$⑤ \quad E = A \cup B$$

$E$ : "La case est noire ou sur une diagonale"

$$p(E) = p(A \cup B) = p(A) + p(B) - p(A \cap B) = \frac{1}{2} + \frac{1}{4} - \frac{1}{8} = \frac{4+2-1}{8} = \frac{5}{8}$$