

Практичне завдання №3.

3.1.

Варіант 9

$$N = 375$$

$$n = 13$$

$$k = \log_2 N = \log_2 375 = 8,55 = 9$$

$$\rho = 1 - \frac{k}{n} = 1 - \frac{9}{13} = \frac{4}{13} = 0,3$$

3.2.

$$A = 1001001$$

$$B = 0101011$$

$$d = 6$$

$$d(A, B) = w(A \oplus B) = w(110010) = 3$$

$$C_7^6 = \frac{7!}{6!} = 7$$

$$\textcircled{1} \begin{array}{r} 1001001 \\ 1110110 \\ \hline 0111111 \end{array}$$

$$\textcircled{2} \begin{array}{r} 1001001 \\ 0010110 \\ \hline 1011111 \end{array}$$

$$\textcircled{3} \begin{array}{r} 1001001 \\ 0100110 \\ \hline 1101111 \end{array}$$

$$\textcircled{4} \begin{array}{r} 1001001 \\ 0111110 \\ \hline 1110111 \end{array}$$

$$\textcircled{5} \begin{array}{r} 1001001 \\ 0110010 \\ \hline 1111011 \end{array}$$

$$\textcircled{6} \begin{array}{r} 1001001 \\ 0110100 \\ \hline 1111101 \end{array}$$

$$\textcircled{7} \begin{array}{r} 1001001 \\ 0110111 \\ \hline 1111110 \end{array}$$

3.3. $A = 110001$

$B = 101101$

$C = 000010$

$D = 101000$

$A \oplus B$

$$\begin{array}{r} \oplus 110001 \\ 101101 \\ \hline 011100 \end{array}$$

$w=3$

$A \oplus C$

$$\begin{array}{r} \oplus 110001 \\ 000010 \\ \hline 110011 \end{array}$$

$w=4$

$A \oplus D$

$$\begin{array}{r} \oplus 110001 \\ 101000 \\ \hline 011001 \end{array}$$

$w=3$

$B \oplus C$

$$\begin{array}{r} \oplus 101101 \\ 000010 \\ \hline 101111 \end{array}$$

$w=5$

$B \oplus D$

$$\begin{array}{r} \oplus 101101 \\ 101000 \\ \hline 000101 \end{array}$$

$w=2$

$C \oplus D$

$$\begin{array}{r} \oplus 000010 \\ 101000 \\ \hline 101010 \end{array}$$

$w=3$

min $w=2$ $B \oplus D$

max $w=5$ $B \oplus C$