1) $A \cup B$ $A \cap B$ where $A = \{1, 2\}$, $B = \{2, 3\}$

$A \cup B = \{1, 2, 3\}$ $A \cap B = \{2\}$

2)

A	B	C	$A \wedge B$	$\neg C$	$(A \wedge B) \vee \neg C$
T	T	T	T	F	T
T	T	F	T	T	T
T	F	F	F	T	T
F	T	T	F	F	F
F	F	T	F	F	F
F	F	F	F	T	T

3) $C(5,3) = \frac{5!}{3!\,2!} = \frac{120}{6 \cdot 2} = \frac{120}{12} = 10$

$$j(A,B) = \frac{|\{2,3\}|}{|\{1,2,3,4,5,6\}|} = \frac{2}{6} = \frac{1}{3} = 0,33$$

$$j(A,C) = \frac{|\{1,3\}|}{|\{1,2,3,4,7\}|} = \frac{2}{5} = 0,4$$

$$j(A,D) = \frac{\{4\}}{\{1,2,3,4,5,6\}} = \frac{1}{6} = 0,16.$$

A Most similar customers for customer A are B with coef 0,33 and C with coef 0,4. The recommendation for customer A to watch movies are 5, 6 and 7.