4.2.7.1 Lift Example revision

	C	$\bar{C}$	
T	150	50	200
$\bar{T}$	650	150	800
	800	200	1000

(a) $Lift(C, T) = ?$ (b) $Lift(T, C) = ?$

Solution (a)

① $Lift(C, T) = \dfrac{confidence(C \to T)}{Support(T)}$

② $confidence(C \to T) = \dfrac{\sigma(C \cup T)}{\sigma(C)} = \dfrac{150}{800} = 0.1875$

$Support(T) = \dfrac{200}{1000} = 0.2$

③ $Lift(C, T) = \dfrac{0.1875}{0.2} = 0.9375 < 1$

negative correlated.

(b)

① $Lift(T,C) = \dfrac{confidence(T \to C)}{Support(C)}$

② $confidence(T \to C) = \dfrac{\sigma(T \cup C)}{\sigma(T)} = \dfrac{150}{200} = 0.75$

$Support(T) = \dfrac{800}{1000} = 0.8$

③ $Lift(T,C) = \dfrac{0.75}{0.8} = 0.9375 < 1$

negative correlated.