MAP mini-test 24/02/2009

NAME: .....

1. Consider the ortho-lattice $\mathcal{L}$ given (in a graphical manner) below:

(i) If $x \in \mathcal{L}$ such that $a \,\&\, x$ are exclusive, then $x = 0$ or $x =$ .....
(List all possibilities.) [1 point]

(ii) If $x \in \mathcal{L}$ such that $b \,\&\, x$ are exclusive, then $x = 0$ or $x =$ .....
(List all possibilities.) [1 point]

(iii) Suppose $p : \mathcal{L} \to [0, 1]$ is a probability law. Considering the n pairs of exclusive elements found at (i), one has the following n restrictions on the values of $p(a), p(b), p(c)$ and $p(c)$:

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[2 points]

2. When do we say that a probability law is not pure?

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[1 points]