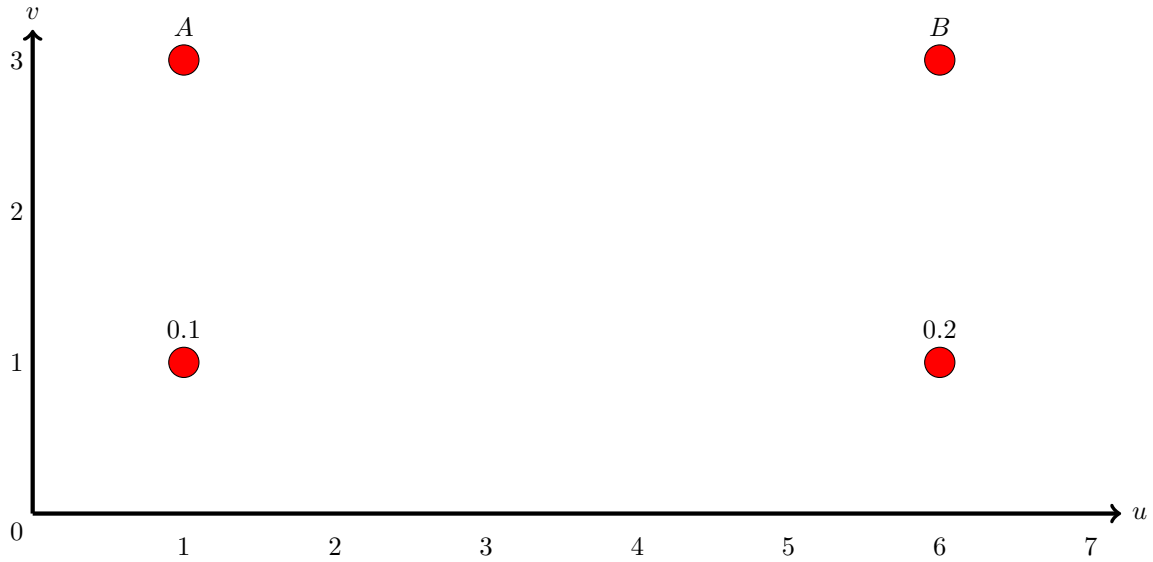
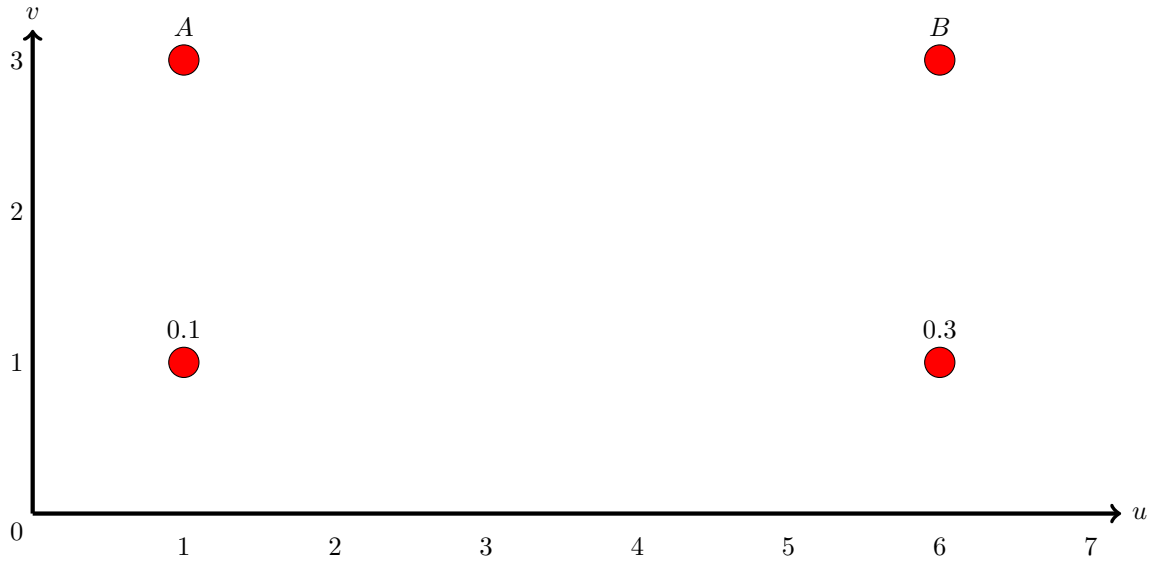


Suppose the joint probability mass function $p_{X,Y}(u,v)$ of independent random variables X and Y is shown below. What is the value of A ?



- (a) $7/30$
- (b) $23/30$
- (c) 0.7
- (d) 0.49
- (e) 0.02
- (f) 0.9
- (g) 0.8
- (h) $1/2$
- (i) $1/4$
- (j) 0
- (k) 1
- (l) None of these

Suppose the joint probability mass function $p_{X,Y}(u,v)$ of independent random variables X and Y is shown below. What is the value of A ?



- (a) $3/20$
- (b) $17/20$
- (c) 0.6
- (d) 0.36
- (e) 0.03
- (f) 0.9
- (g) 0.7
- (h) $1/2$
- (i) $1/4$
- (j) 0
- (k) 1
- (l) None of these

Solution:

Let $C = p_{X,Y}(1,1)$ and $D = p_{X,Y}(6,1)$. Then, by independence, $C = (A + C)(C + D)$, so $A = \frac{C}{C+D} - C$.