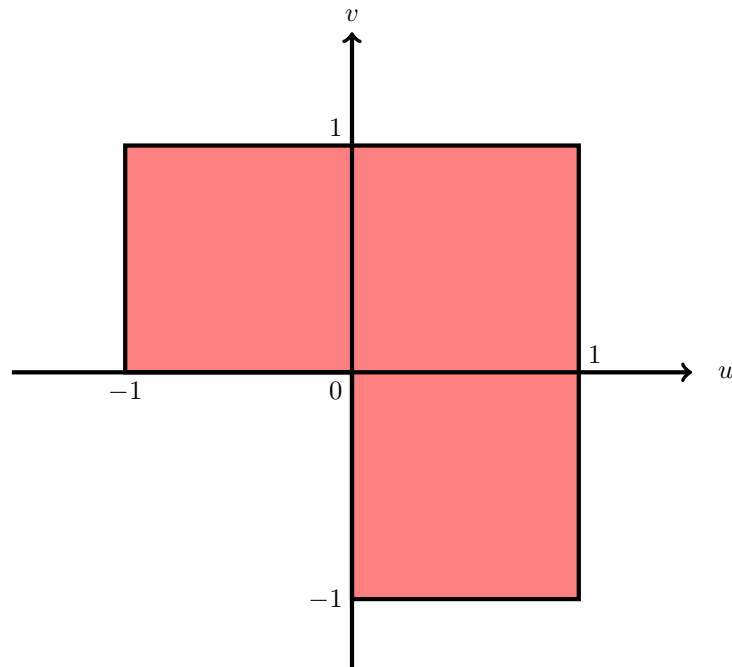


Suppose  $X$  and  $Y$  are random variables whose joint probability density function is uniform in the red region shown below, and zero elsewhere. What is the variance of  $X$  ?



- (a)  $11/36$
- (b)  $11/18$
- (c)  $1/9$
- (d)  $1/3$
- (e)  $2/3$
- (f)  $5/36$
- (g)  $5/18$
- (h)  $5/9$
- (i)  $1/36$
- (j)  $1/6$
- (k)  $1/4$
- (l) None of these