What is the probability that a Poisson random variable with mean $\ln 2$ is less than $3/2$?

(a) $\ln \sqrt{2e}$

(b) $1/\ln(2e)$

(c) $1/\ln(e^2)$

(d) $\ln \sqrt{2}$

(e) $\ln \sqrt{e}$

(f) $1/e$

(g) e^{-2}

(h) $2e^{-2}$

(i) $1/(e \ln 2)$

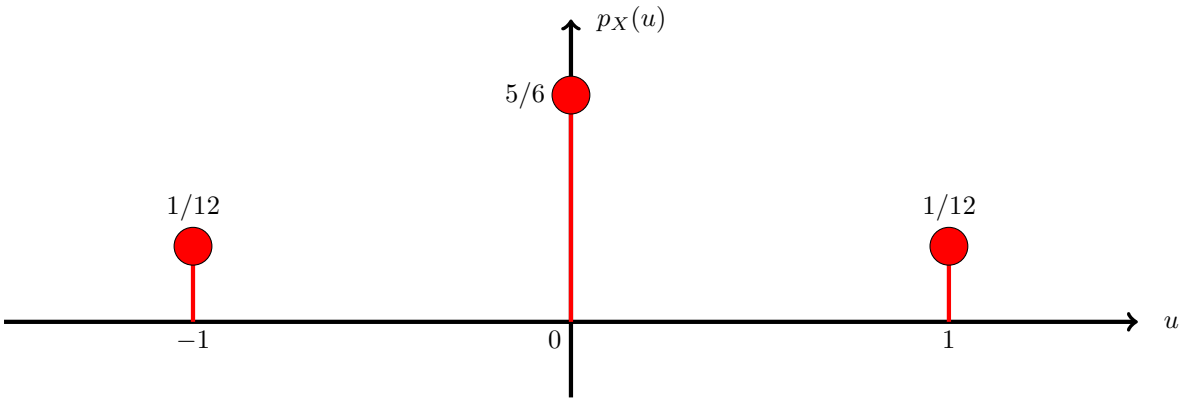
(j) $1/(2 \ln 2)$

(k) $1/2$

(l) $1/4$

(m) None of these

If X is a discrete random variable whose probability mass function is shown below, then what is the variance of $2 - 3X^2$?



(a) 5/4

(b) 5/8

(c) 3/2

(d) 3/4

(e) 1/2

(f) 4/5

(g) 3/5

(h) 2/25

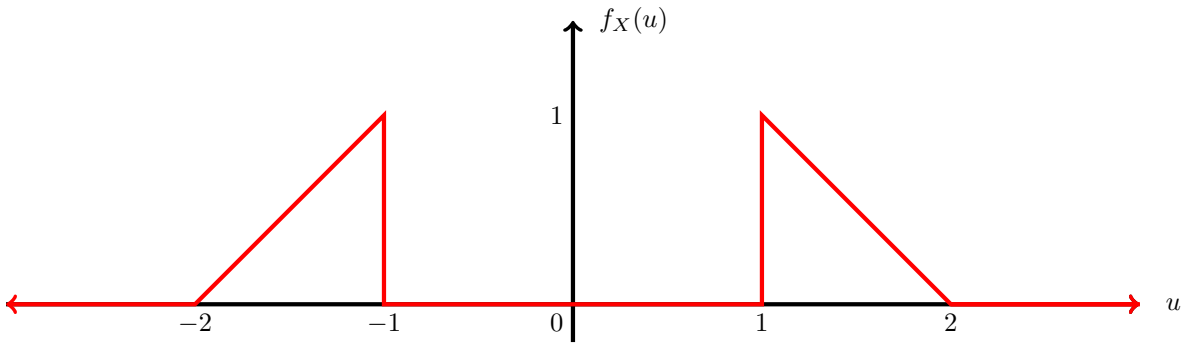
(i) 1/25

(j) 9/25

(k) 3/25

(l) None of these

What is the variance of a random variable X whose probability density function is shown below?



(a) 11/6

(b) 11/12

(c) 3/4

(d) 5/6

(e) 7/12

(f) 1/6

(g) 1/3

(h) 0

(i) 1/2

(j) 1/8

(k) 5/2

(l) None of these