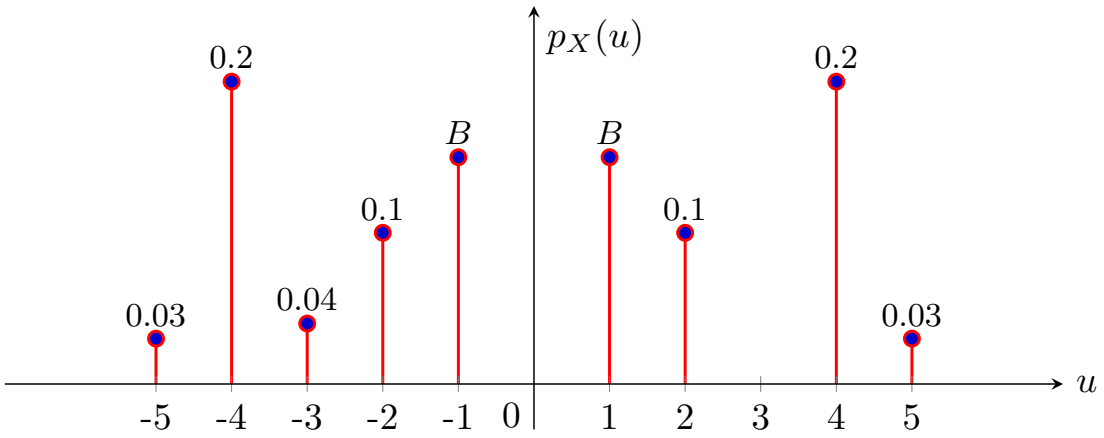
Let X be a discrete random variable whose probability mass function is shown below, where B is a positive real number. What is the expected value of X?



(a) -0.12

(b) 0.12

(c) 0

(d) -0.04

(e) 0.04

(f) -3

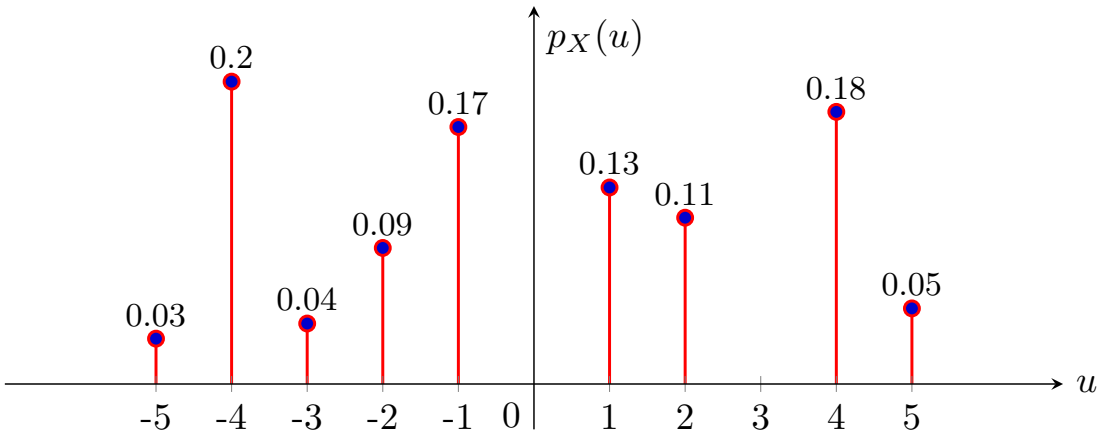
(g) 3

(h) $2B$

(i) $1 - 2B$

(j) None of these

Let X be a discrete random variable whose probability mass function is shown below. What is the probability that $2X + 9$ is positive, given that $X + \pi$ is negative?



(a) 20/23

(b) 23/100

(c) 3/100

(d) 0

(e) 3/23

(f) 4/27

(g) 27/100

(h) 1/5

(i) 1

(j) None of these

If X is a continuous random variable that is uniformly distributed on the interval $[-5, 8]$, then what is the probability that $X^2/3$ is less than $6 - X$?

(a) 8/13

(b) 9/13

(c) 8

(d) 1/8

(e) 1/13

(f) 1/3

(g) 2/8

(h) 2/13

(i) 2/3

(j) 1

(k) 0

(l) None of these