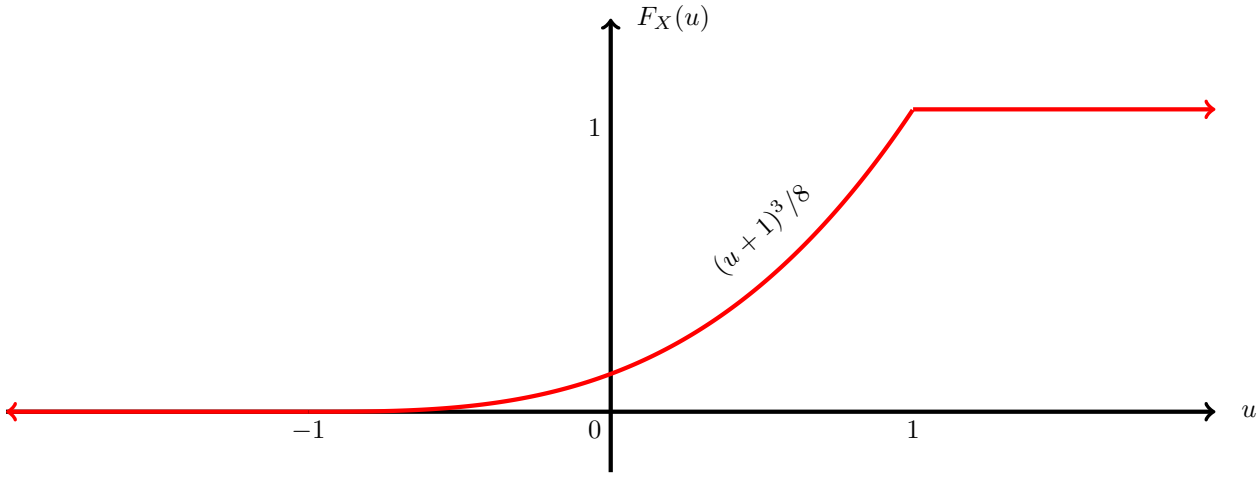
Let X be a random variable whose cummulative distribution function is $(u+1)^3/8$ on $[-1,1]$, as shown below. What is the probability that $0 < X < 3$, given that $-2 < X < 1/2$?



(a) 19/27

(b) 8/27

(c) 1/8

(d) 4/9

(e) 5/9

(f) 1/4

(g) 3/4

(h) 1

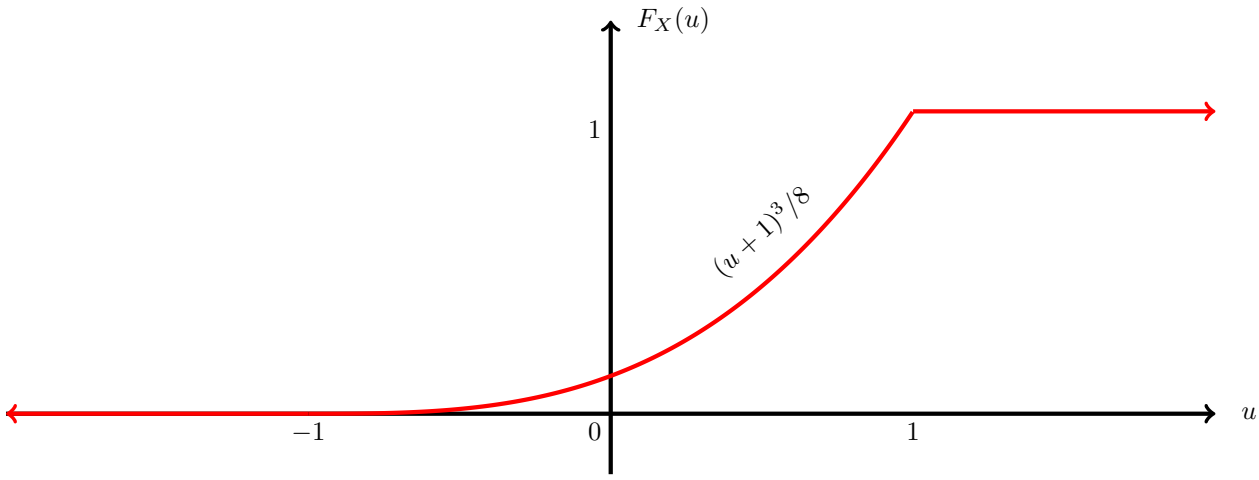
(i) 1/9

(j) 1/3

(k) 1/2

(l) None of these

Let X be a random variable whose cummulative distribution function is $(u+1)^3/8$ on $[-1,1]$, as shown below. What is the expected value of X?



(a) $1/2$

(b) $-1/2$

(c) $2/3$

(d) $-2/3$

(e) 1

(f) -1

(g) $1/8$

(h) $-1/8$

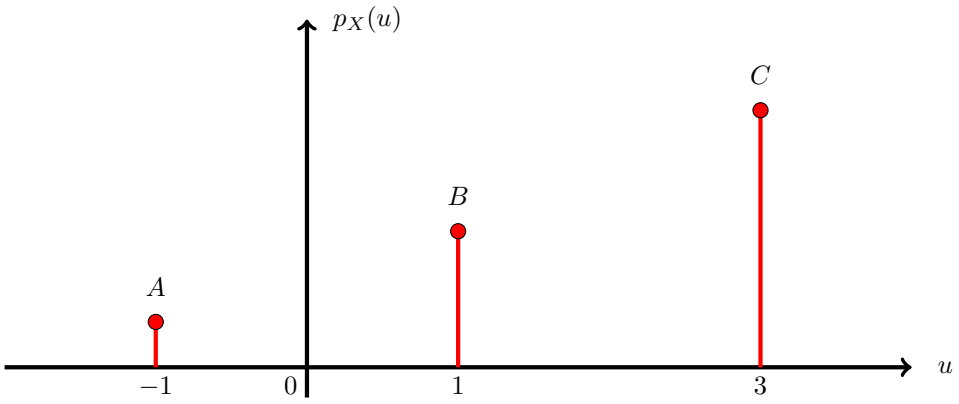
(i) $1/4$

(j) $3/4$

(k) $3/8$

(l) None of these

Let X be a discrete random variable whose probability mass function is shown below. If the expected value of X is $5/2$, and the probability that X^2 is larger than $2(3X-4)$ is $1/5$, then what is B ?



(a) 3/20

(b) 3/10

(c) 1/10

(d) 1/4

(e) 1/8

(f) 7/10

(g) 5/20

(h) 3/4

(i) 3/8

(j) 7/20

(k) 1/2

(l) None of these