Suppose we flip 5 fair coins. Let X be the number of Heads and let Y be the number of Tails. What is the probability that $X + Y$ is even?

(a) 0

(b) 1

(c) 1/2

(d) 1/5

(e) 1/3

(f) 1/4

(g) 2/3

(h) 2/5

(i) 1/25

(j) 3/5

(k) 4/5

(l) None of these.