

81. You wish to simulate a value, Y , from a two point mixture.

With probability 0.3, Y is exponentially distributed with mean 0.5. With probability 0.7, Y is uniformly distributed on $[-3, 3]$. You simulate the mixing variable where low values correspond to the exponential distribution. Then you simulate the value of Y , where low random numbers correspond to low values of Y . Your uniform random numbers from $[0, 1]$ are 0.25 and 0.69 in that order.

Calculate the simulated value of Y .

- (A) 0.19
- (B) 0.38
- (C) 0.59
- (D) 0.77
- (E) 0.95