

Q1 (a)

$$E(X) = 1 \div (1/3) = 3$$

We know that $X \sim GEO(p)$

Specifically, $p = 1/3$

\therefore The answer is 3

(b)

$$E(X) = 1 \div (1/N) = N$$

Specifically, $p = 1/N$

\therefore The answer is N