8. Determine if the following subsets of $\mathbb{R}$ have upper or lower bounds. Determine the greatest lower bound or the least upper bound.

(a) $A = \{1, \frac{1}{2}, \frac{1}{3}, ..., \frac{1}{n}, ...\}$

(b) $B = \{1, \frac{1}{2}, \frac{1}{4}, ..., \frac{1}{2^n}, ...\}$

(c) $C = \{1, 1+\frac{1}{2}, 1+\frac{1}{2}+\frac{1}{4}, ..., 1+\frac{1}{2}+\frac{1}{4}+\cdots+\frac{1}{2^n}, ...\}$

(d) $D = \{(-1)^n \frac{n+1}{n} : n = 0, 1, 2, 3, ...\}$

(e) $E = \{1+\frac{n+1}{2^n} : n = 0, 1, 2, 3, ...\}$