June 4th, 2019 **SWMS-2018-Foll ow up**
Quiz 1

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1. Let A and B be two subsets of $\mathbb{R}$, which are both bounded below. Let $u = \inf(A)$ and $v = \inf(B)$. Let $C = \{ab : a \in A, b \in B\}$. Is $\inf(C) = u \cdot v$?

Solution :- No.

$A = \{-3, -2\}$ $B = \{-1, 0\}$ – are bounded below.

- $\inf(A) = -3$ $\inf(B) = -1$

$C = \{a.b \mid a \in A, b \in B\} = \{0, 2, 3\}$

- $\inf(C) = 0$

So $\inf(C) \neq \inf(A) \cdot \inf(B)$

□