

S 1.1 # 7

Domain of the sum is the INTERSECTION of the domains of each function, separately

$$D(f) = \text{Domain of } f = [0, 8]$$

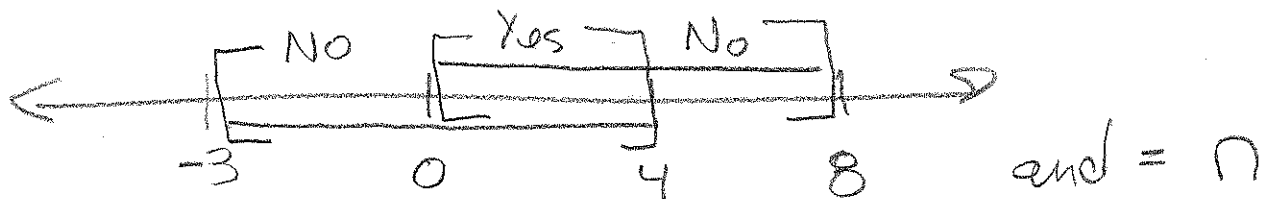
$$D(g) = [-3, 4] \rightarrow$$

$$D(f+g) = \text{Domain of the sum}$$

$$= \text{the intersection} = D(f) \cap D(g) \text{ - To}$$

be in the intersection, x must be in

$D(f)$ and $D(g)$: Layout on a number line:



Take the overlap:

$$x \in D(f+g) \Rightarrow x \in D(f) \text{ and } x \in D(g)$$

$$D(f+g) = [0, 4]$$

is final answer.

MyLab wants the

$$[0, 4].$$