

Response to homework: 20math401retHW1<sub>2</sub>.pdf

KBe20math401srcDeltaEpsilonReview1.png  $|x - 2||x + 4| < \epsilon$  so near  $x = 2$ ,  $|x - 2|$  is smol, so the primary term contributing to the value of the total function is  $|x + 4|$ . Using the above condition,  $|x - 2| < 1 \Rightarrow 1 < x < 3 \Rightarrow 5 < x + 4 < 7$

So,  $|x + 4|$  is at most 7, we could try substituting it in and getting  $7|x - 2| < \epsilon$ . Also do the other side:  $5|x - 2| < \epsilon$

You also need to do this: KBe20math401srcDeltaEpsilonProof2.png for the actual proof.

---