>> You might want to assume your position. And go.

>> How much heat is needed to melt 70 grams of ice at zero degrees C? Now this problem has two pieces of information we need to work with. The first one is the 70 grams of ice and the second one is that we're melting that ice at zero degrees C. Okay, anytime you melt something, melt ice in particular, you're working with fusion, working with heat of fusion. Which is your Delta H fusion, which is 80 calories per gram of ice. Okay? What that means is you've got ice, it's very tightly packed together, you need to break those intermolecular attractions in the ice to turn it into water. For every gram of the ice it's going to take 80 calories of heat to break those attractions, so that it becomes a liquid. Okay, knowing that now, that we're just melting ice, we're going to use the 80 calories, we're going to use our 70 grams, and we're using this equation right here. Heat equals mass times Delta H of fusion. So plugging in our numbers, mass becomes 70 grams, Delta H fusion will always be for water 80 calories per gram. You can see that the grams are going to cancel and 70 times 80 gives us 5600. Now there's two significant figures here. So you have the two significant figures in your answer. Your units going to be calories, that's all that's left there, after crossing out. Now sometimes you're going to have to change that into kilocalories. If you do now, you're going to then use your equality of 1 kilocalorie equals 1000 calories. [inaudible] this way now you can see the calories, they'll cancel out, leaving us with 5600 divided by 1000. Giving us 5.6 and kilocalories will be our units