She may be too racy for Sesame Street, but we're all adults here, right? The lesson that Katy Perry was trying to teach Elmo in her canceled cameo on the long-running children's show is one that is essential for you as you approach Data Sufficiency questions on the GMAT. So just as the beat of *California Gurls* might, embarrassingly enough, inspire you to pick up your pace at mile 22 of a marathon, the lyrics of *Hot n Cold* can spur you to success on the GMAT. Admit it, you know the words:

You're hot then you're cold, you're yes and you're no, you're in and you're out, you're up and you're down.

Katy Perry, ever unlucky in love (seriously…Russell Brand?), is describing a relationship that is not sufficient, and in doing so providing you with a blueprint to determine whether a mathematical statement is not sufficient: Get both answers – if "you're yes and you're no", you're insufficient.

Consider this example:

Does the product of integers a, b, c, and d equal 1?

1) ab/cd = 1

2) a + b > b + c

By plugging in numbers consistent with statement 1, it's fairly easy to get an answer to the overarching question; something like 4*2/8*1 does indeed equal 1, but the product of those numbers is 64 and the answer is NO. But like the relationship in Katy Perry's song, this "NO" answer could be subject to change in a unique situation, so our goal should be to find a way to get the answer "YES". How can that be done? Should all variables equal 1, that ought to do it: 1*1/1*1 = 1, and 1*1*1*1 is also 1, so by choosing numbers carefully – with a goal of getting the answer "YES" to counterbalance the "NO" we already have – we can prove that statement 1 is not sufficient.

Statement 2 should seem to preclude that "all = 1″ situation, however. We could still use 8, 1, 4, and 2 as our a, b, c and d variables* to get the answer "NO" as above, but trying to find the answer "YES" gets tougher as now the possibility of having all the same variables is no longer allowed. However, if our goal is to find "YES", we're inspired to find a way, and there's one way to do it: 1, -1, -1, 1. That gives us a + b = 0 and b + c = -2, so a + b > b + c, but the product would cancel the two negatives to give exactly 1, so there's our "YES".

Taken together, our demonstration of "YES" in statement 2 is consistent with the terms of statement 1, so we can show that even with both statements the possibilities of both NO (8, 1, 4, 2) and YES (1, -1, -1, 1) still exist, so we don't have enough information to answer the question and the correct answer is E.

* – please note for strategic value – when picking numbers you can save time by using your numbers for either "YES" or "NO" from statement 1 when you attempt statement 2, as long, obviously, as the numbers you picked are consistent with statement 2. Because often after 1 is not sufficient you'll need to try both statements together, it's helpful in practice to get in the habit of seeing if your first set of numbers will work as your plug in values for your second set so that you've already done half of the work that you may need to do when you consider 1 and 2 together.

Like a Katy Perry song, Data Sufficiency questions often hinge upon your ability to get conflicting answers. Get a yes and a no and you can prove that the statement is insufficient…it's so easy that even a Muppet should be able to do it!