Choose a statistic that recently came across your desk where you were just given a mean. If you can't think of one, come up with an example you might encounter in your life.  How would knowing the variance and the skew of the data give you a better idea of the data? What could you do with that information?

Here is an example:

Say you are an executive in an automobile manufacturer, and you are told that, for a particular model of new car that you sell, buyers have on average 2.2 warrantee claims over the first three years of owning the car. What would additional information on the shape of your data tell you?

* If the variance was low, you'd know that just about every car had 2 or 3 warrantee claims, while if it was high you'd know that you have a lot of cars with no warrantee claims and a lot with more than 2.2.
* The skew would provide similar information; with a high level of right skew, you'd know that the average is being brought up by a few lemons; with left skew you'd know that very few of the cars have no warrantee claims.