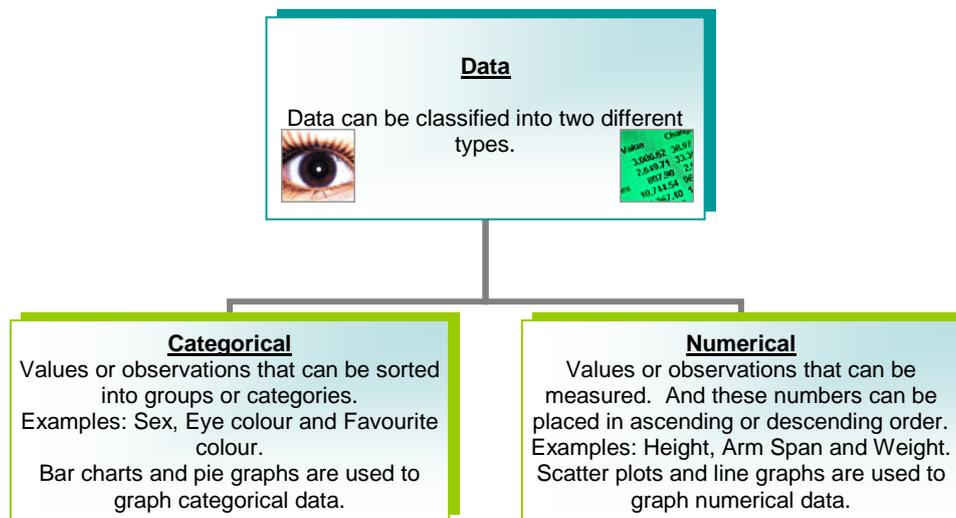


What's the Difference Between Numerical and Categorical data?



Task:

1. Sort the following CensusAtSchool question topics according to whether they will yield categorical or numerical data.

<i>Amount of money earned last week</i> <i>Arm span</i> <i>Birthdate</i> <i>Concentration exercise (seconds)</i> <i>Dominant hand reaction time</i> <i>Favourite sport</i> <i>Height</i> <i>Hours slept per night</i>	<i>Language mostly spoken at home</i> <i>Foot length</i> <i>Opinions on environmental conservation</i> <i>School post code</i> <i>State/Territory live in</i> <i>Travel method to school</i> <i>Travel time to school</i> <i>Year level</i>
<u>Categorical</u>	<u>Numerical</u>
<ol style="list-style-type: none"> 1. <i>Birthdate</i> 2. <i>Favourite sport</i> 3. <i>Language mostly spoken at home</i> 4. <i>Opinions on environmental conservation</i> 5. <i>School post code</i> 6. <i>State/Territory live in</i> 7. <i>Travel method to school</i> 8. <i>Year level</i> 	<ol style="list-style-type: none"> 1. <i>Amount of money earned last week</i> 2. <i>Arm span</i> 3. <i>Concentration exercise (seconds)</i> 4. <i>Dominant hand reaction time</i> 5. <i>Height</i> 6. <i>Hours slept per night</i> 7. <i>Foot length</i> 8. <i>Travel time to school</i>

2. Why is data, that contains numbers, such as post codes and birthdates, considered categorical?
A quick and easy way to decide whether data is numerical or categorical is to ask yourself "Can I calculate an average of these numbers?". If you can calculate an average, the data is numerical, if you cannot, the data is categorical. Since an average postcode or average year level has no meaning, this data is categorical, even though the data is presented as numerals.