

## Status of the Generalizations

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- 1) Exact, essentially exact, merely approximate
  
- 2) If not exact, then which combination of:
  - a. Holds in the mean or not in the mean (skewed)  
– e.g. ideal gas law does not hold in the mean
  
  - b. Idealization or mere approximation

where idealizations can be:

- i. Generalizations that would hold exactly in certain specifiable circumstances
  
- ii. Generalizations that serve only to provide simpler mathematics – e.g. linear elasticity

***Question:*** Assuming, as Kepler had by 1625, that his generalizations are probably not exact, what, if any evidence could have indicated for each which of the above categories it belonged in?