

Questions on Dimensions:

1. What are fundamental quantities?
2. What are derived quantities?
3. What are dimensions?
4. How do you understand dimensional homogeneity? Why is it important?
5. What are fundamental quantities in SI?
6. How do you understand dimensional analysis?
7. What is dimensionless group?
8. What is the Pi-procedure?
9. What is rank of a matrix? How is it related to the number of non-dimensional parameters which can be introduced for a given problem?
10. Formulate the Pi-theorem. Why is it important?
11. What is geometric similarity?
12. What is dynamic similarity?
13. Explain how the physical meaning of non-dimensional parameters is typically established. Give a few examples.