

## 01.9 intro.exe Exercises for Chapter 01 intro

### Exercise 01.1 madrid

Consider the drivetrain of a standard internal combustion engine vehicle. When accelerating from a stop in wet weather it is common for the wheels to slip due to a film of water between the wheels and the road. Develop a lumped parameter model of this system with the following assumptions,

- the engine and transmission together can be simulated as a torque source,
- the transmission and wheels are connected with a drive shaft of finite stiffness, and
- each wheel has equal mass.

From this description please,

1. draw a one dimensional lumped parameter model (like the diagrams in problem granda), and
2. draw a linear graph of the lumped parameter model.

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15 p.

## 02 graphs

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