

### Homework assignment 3

#### Hints:

(a) Which object do you plan to use as your “system”, *e.g.*, where do you want to focus on? One hint is to think what are all the forces and where they are exerted on. If you treat the junction point of the rope as you system, say, putting a tiny flag (massless) there, and analyze the forces exerted on the flag. Your question will become much simpler

(b) when you draw free-body diagram for the middle point of the rope, *e.g.* the flag, don't worry about the gravity, just think it is a question about the balance of 3 forces. Before you start to what on it, what is known and what is unknown?

