The Force of Tension and Systems (FT):

For each of the following find the force of tension in terms of: *m, M, g, θ, φ, μ, F, a*

1. 2.

θ

m

**F**

m

(FT < mg)

3. 4.

m

**a**

m

m

**a**

5.

μ > 0

m

**a**

 6.

7.

m

**a < g**

 8. Write a system of equations that could be used to find both

 **Ft1** and **FT2** in terms of M, g, θ,φ

φ

θ

M

Systems:

**Find FT for each of the following. Give the answer in terms of m, m1, m2, m3,, M, g, μ, F and θ.**

1. 2.

 a

 M

 m

 F

 M

 m

 F

3. μ>0

 4.

m1

m1

 5.

m1

m2

 m2 < m1

m

 μ=0

 θ

 M

 7.

 m

6.

 T1 T2

 m2

 m1

 m3

 F

 m

 M

8.

 μ > 0

 **a**

9.

 Find Ff on top block

m

F>Ff1

M

μ1 >0