

## Section 2: Newton's second law

### Crucial points

1. **Always draw a clear diagram**

Make sure that you include all forces. These may include weights, normal reactions, tensions in strings etc, resistance forces. Write in any angles.

2. **Remember to deal with signs appropriately**

Decide which direction you are taking as positive, and remember that all forces acting in the opposite direction are negative.

Also remember that if the tension in a coupling turns out to be negative, then the force in the coupling is actually a thrust (compression force).

Tension in a string cannot be negative!

3. **Choose which direction to resolve in sensibly**

If there is motion, always resolve in the direction of motion and in the direction perpendicular to the motion.