Strategy for Solving Force Problems

1) **Draw** a reasonably accurate picture of the system.

2) **Choose** an appropriate coordinate system for each object in the system.

3) **Draw** all the forces acting on each object, indicating the proper label and direction.

4) **Determine** what the sum of the forces (Σ F) acting on each object is equal to (0 or *ma*).
Do this for all necessary directions (*x*, *y*, *z*) *for each object.*
[**NOTE:** be mindful of the direction of the motion ➔ Is *a* + or -?]

5) **List** the forces (*in component form if necessary*) on the LHS of $\Sigma F = ma$ for each object and direction [*as determined in* ***Step* 4**].

6) Solve …