

Another Angle on F-m-a

Read from **Lesson 3** of the **Vectors and Motion in Two-Dimensions** chapter at **The Physics Classroom**:
<http://www.physicsclassroom.com/Class/vectors/u3l3a.html>

MOP Connection: Forces in Two Dimensions: sublevels 1 and 3

Directions:

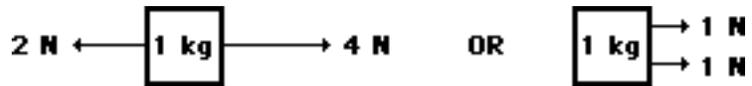
1. Draw and label the forces (direction and magnitude) acting upon the objects below in order that the objects experience the acceleration which is specified in each case.
2. At least two forces must be added to the object in each situation.
3. If forces are already present, #2 above still applies.

Acceleration

Forces

Example:

$a = 2 \text{ m/s}^2$, Right



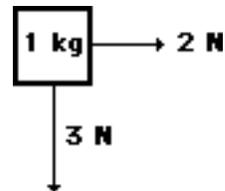
1. $a = 3 \text{ m/s}^2$, Down



2. $a = 4 \text{ m/s}^2$, Left

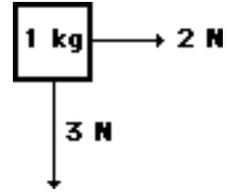


3. $a = 2 \text{ m/s}^2$, Down

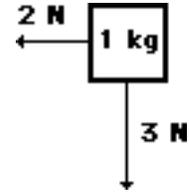


Forces in Two Dimensions

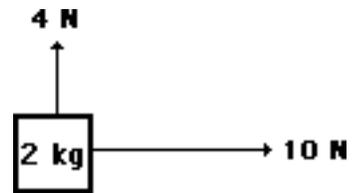
4. $a = 2 \text{ m/s}^2$, Up



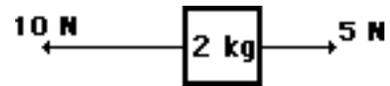
5. $a = 2 \text{ m/s}^2$, Left and 3 m/s^2 , Up



6. $a = 4 \text{ m/s}^2$, Right and constant velocity, Up



7. constant velocity, Right & constant velocity, Up



Make your own problem and have your lab partner solve it.

8.