2D Collisions

Law of Conservation of momentum:

$$\vec{P}_{total} = \vec{P}'_{total}$$ (isolated system i.e. no friction)

* Draw a diagram before + after (a diagram of the situation)

OPTIONS TO SOLVE a 2D problem:

① Draw a momentum vector addition diagram.
(* only good if dealing with 3 vectors)

② Use an x-y chart before + after

Elastic Collisions

A collision is classified as an elastic collision IF

$$E_{k\,total} = E'_{k\,total}$$

Where $E_k = \frac{1}{2}mv^2$ (J)

* Not EVERY collision is ELASTIC

Look over MP/514
PP/515