Aims and Objectives Relativity 1 and Vectors Session 9

MOMENTUM, KINETIC ENERGY AND IMPULSE.

Aims (What I intend to do)

1) To recap on the relationship between force, work and kinetic energy.
2) To discuss the relationship between force momentum and impulse, introducing the concept of impule as required.
3) To re-examine the conservation of momentum.

Objectives (What you should be able to do after completing the lecture and worksheet)

1) To be able to identify an expression that relates force and kinteic energy, and use it to solve problems.
2) To be able to identify an expression that relates momentum and impule, and use it to solve problems.
3) To be able to use the combination of concepts, momentum, force, work and kinetic energy to solve mechanics problems.

Relativity 1 and Vectors PHY1105 Worksheet 9

Task 1. Go over lecture notes and read Young and Freedman sections 8.1-8.2.

Task 2. Do worked example 8.6 from Young and Freedman.

Task 3. Look at discussion question Q8.3.

Task 4. Do exercises 8.10, 8.13 and 8.20 from Young and Freedman.

Task 5. Read Young and Freedman section 8.3-8.5 in preparation for the next session.