Projectile problems

Give each pair of students a single statement from the sheet below and ask them to create a problem around that final answer. Each pair/ group of students could be given a different one or all pairs /groups could be given the same one. Problems can be checked by exchanging with another group / pair and any interesting ideas or uncertainties can be shared during class discussion. In particular the initial checking process should focus on whether there is enough information in the question (or too much information) in order to be able to answer it. Then the calculations can be checked to see if the answer is the same as on the statement.

The statements on the sheet are just possible ones, other similar ones can be added. It might help to allow students to use $g = 10ms^{-2}$ rather than $9.8ms^{-2}$ to ease the calculations.

The time of flight
is 10 seconds.

The range of the flight
is 25 metres.

The maximum height
is 30 metres.

It hit the ground
with a speed of 5 ms^{-1}

It took 8 seconds
to reach its maximum height.