

Gravitational field analysis (16 pts)

Graph of force vs. mass - 3 pts

Axes labels and units - 1 pt

Regression line - 1 pt

Slope with units of N/kg - 2 pts

4. For every 1kg of mass, there is a gravitational force of ...N - 1 pt

5. The slope would be lower as there would be less F per m - 1 pt

6. A correct diagram of the gravitational field of the Earth - 1 pt

7. A correct graph of F vs R - 2 pts

8. One must be infinitely far to reach a gravitational force of zero – 1 pt

The astronauts cannot appear to float because they are outside the force of gravity - 1 pt