Force, mass and acceleration

Work out the answers to these problems by substituting into the formula F = ma.

$$F = ma$$

Calculate the force of:

1) A car with mass of 1500 kg travelling with acceleration of $5m/s^2$.

2) A person with a mass of 70kg accelerating at $2m/s^2$.

3) An aeroplane with a mass of 60,000kg accelerating at $3m/s^2$.

4) A rocket with a mass of 3,000,000kg accelerating at $20m/s^2$.

Calculate the mass of:

1) A car accelerating at $4m/s^2$ with a force of 6400N.

2) A person accelerating at $2m/s^2$ with a force of 130N.

3) An aeroplane accelerating at $3m/s^2$ with a force of 1,950,000N.

4) A rocket accelerating at $18m/s^2$ with a force of 45,000,000N.

Calculate the acceleration of:

1) The acceleration of a car with mass of 1450kg and force 8700N.

2) The acceleration of a person with mass 62kg and force 155N.

3) The acceleration of an aeroplane with mass 75,000kg and force 187,500N.

4) The acceleration of a rocket with mass 2,400,000kg and force 52,800,000N.