Generating Formulae

(a) An equilateral triangle has sides of length x cm. Write a formula for the perimeter P of the triangle.

(b) A helicopter consumes n litres of fuel per minute. Write a formula for the total number of litres T consumed during a flight lasting 30 minutes.

(c) Each month I pay £a for my house insurance and £b for my car insurance. Find a formula for the total amount T I spend on house and car insurance per year.

(d) Jo receives £500 for her birthday, which she saves in a bank. She adds £10 per month to her savings. Find a formula for the amount £P she will have after m months of saving.

(e) A rectangle has length $2x\ cm$ and width $(x+3)cm$. Find formulae for the area A and the perimeter P of the rectangle.

(f) Pencils cost 15p each and pens cost 25p each. Write a formula for the cost C of x pencils and y pens.

(g) My brother is 6 years older than me, and my sister is 3 years younger than me. I am x years old. Write a formula for the mean age M of me, my brother and my sister.

(h) A rectangle of dimensions a cm by b cm has a 1 cm square cut from each of its four corners. The sides formed are then folded up to make a rectangular tray. Find a formula for the volume V of the tray.