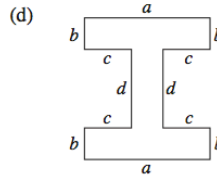
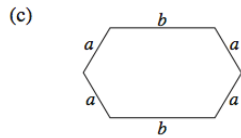
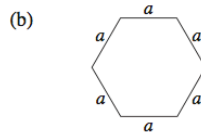
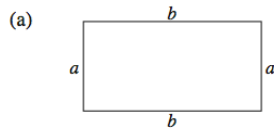


2.2 Construct and Use Simple Formulae

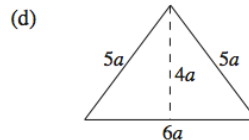
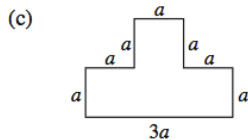
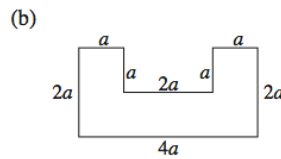
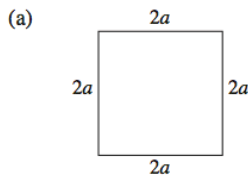
1. Find a formula for the perimeter, P , of each of the shapes below.



In each of the following cases, use the formula to find the value of P :

- (a) when $a = 5$ cm, $b = 10$ cm;
 (b) when $a = 5$ cm;
 (c) when $a = 5$ cm, $b = 10$ cm;
 (d) when $a = 8$ cm, $b = 2$ cm, $c = 3$ cm, $d = 5$ cm.

2. Find the area, A , and perimeter length, P , for each of these shapes.



In each case, find A and P when $a = 2$ cm.

3. Petrol costs 58p per litre. What is the cost, in pounds, of x litres?

Use your formula to find the cost of

- (a) 10 litres (b) 50 litres

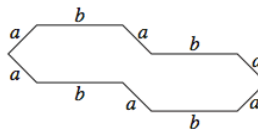
4. A piece of wire is bent into the shape shown.

Find the total length of the wire used.

Simplify your answer.

(All dimensions are in centimetres.)

If the total length of the wire is 24 cm and $a = 2$ cm, what is the length of b ?



5. A train operating company calculates its fares using the formula 12p per mile. If you travel a distance x miles, what is the formula for the cost in

- (a) pence (b) pounds

Use your answer to (b) to find the cost when you travel

- (i) 10 miles (ii) 100 miles (iii) 200 miles (iv) 1000 miles

