1 Solve each equation, and for each one say whether you expanded first or divided first, and why.

(a) $4(x+3)=32$ (2)

(b) $3(y+2)=20$ (2)

(6 marks)

2 A rectangle has width w cm and a length 6 cm greater. Its perimeter is 44 cm.

(a) Write an equation and solve it to find the width (2)

(b) Write down the area of the rectangle (1)

(c) A second rectangle has the same perimeter but is a square. Find its area. (2)

(7 marks)

3 A shop sells sugar at $4{,}800$ shillings a kilogram with free delivery. A second shop sells it at $4{,}200$ a kilogram and charges $5{,}000$ for delivery.

(a) Write a formula for the cost at each shop (2)

(b) Find the cost of 5 kg at each shop (2)

(c) Find the cost of 15 kg at each shop (2)

(d) Find the weight at which the two shops charge the same (2)

(8 marks)

4 Write down **three different expressions** that are each equal to $12x+20$, and show that each one is.

(6 marks)

5 Look at $3(x+4)$ and $3x+4$.

(a) Find a value of x for which they give different answers (2)

(b) Is there a value of x for which they agree? Explain. (2)

(4 marks)