When you write an inequality, **say what your letter stands for** and give its unit.

1 Write an inequality for each situation.

(a) A class wants to raise more than $500{,}000$ shillings (1)

(b) The temperature on Mars is below $-10\,°\text{C}$ (1)

(c) Arlette must read for a minimum of 15 minutes (1)

(d) Kini may read for at most 30 minutes (1)

(6 marks)

2 Write an inequality for each situation.

(a) A lift can carry no more than 8 people (1)

(b) A pupil must be at least 11 years old to join the club (1)

(c) The bus holds fewer than 50 passengers (1)

(d) The tank holds over 200 litres (1)

(6 marks)

3 Draw a number line for each inequality.

(a) $x < 5$ (2)

(b) $x \geq -2$ (2)

(c) $x > -4$ (2)

(6 marks)

4 Each number line below is described in words. Write the inequality, and then write a situation it could describe.

(a) A closed circle at 18 with an arrow to the right (2)

(b) An open circle at 100 with an arrow to the left (2)

(6 marks)

5 x is a whole number.

(a) List all the whole numbers that are solutions of $x > 2$ and also solutions of $x \leq 7$ (2)

(b) List all the whole numbers that are solutions of $x \geq -2$ and also solutions of $x < 3$ (2)

(6 marks)

6 A pupil wrote $x > 5$ for the situation *there must be at least five people*.

(a) Would a group of exactly five people be allowed in this situation? (1)

(b) Is 5 a solution of $x > 5$? (1)

(c) Write the correct inequality (1)

(4 marks)