Day 204 **B Tier 10-a-day**

1 (a) Write down the inequality shown on the number line.
(b) Write down all the integers that satisfy the inequality.



2 Work out
(a) $8^2 + 3^3$
(b) $\sqrt{81} - 4^2$

3 The table shows the books read by each member of a club in a month.
Work out the mean.

Books	0	1	2	3	4
Frequency	7	2	1	8	2

4 A straight line has equation y = 4x + 6
(a) Write down the gradient of the line.
(b) Write down the equation of a line that is parallel to this line and passes through the point (0, 7).

5 An open box (no lid) is a cuboid measuring 10 cm by 9 cm by 5 cm.
The base is 10 cm by 9 cm.
Work out the total area of card needed to make the box.

Day 204	B Tier 10-a-day
6 Make m the subject of the formula T = 6m + 4	
7 City E has a population density of 40 people per km^2. Its area is 25 km^2. Work out its population.	
8 A storage tank is $\frac{1}{4}$ full. 112 litres of oil are added. The storage tank is now $\frac{3}{5}$ full. Work out the capacity of the storage tank.	
9 In triangle PQR, PQ = 8 cm, QR = 19 cm and angle PQR = 75°. (Calculator) Work out the area of the triangle. Give your answer correct to 1 decimal place.	
10 Calculate the length of t. (Calculator) Give your answer correct to 1 decimal place. The diagram is not drawn accurately. 	