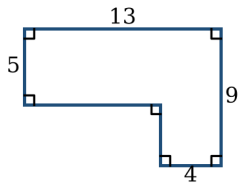
Day 213 **B Tier 10-a-day**

1 Here are the amounts needed to make soup for 6 people.
360 g of carrots, 900 ml of stock
Work out the amounts needed to make soup for 3 people.

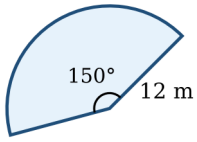
2 $f(x) = 7x - 7$
(a) Work out f(7)
(b) Solve $f(x) = -21$

3 The diagram shows the shape of a kitchen floor.
All the corners are right angles. All lengths are in cm.
(a) Find the perimeter.
(b) Find the area.



4 Write these numbers in order of size.
Start with the smallest.
6.2×10^{-3}, 0.55, 6.3×10^{4}, 0.078

5 The diagram shows a sector of a circle with radius 12 m and angle 150°.
Work out the length of the arc of the sector.
Give your answer in terms of π.
The diagram is not drawn accurately.



Day 213	B Tier 10-a-day
6 In a test, the mean mark of 9 Class A is 55. The mean mark of 6 Class B is 80. Work out the mean mark of all 15 students.	
7 Triangle PQR has a right angle, a hypotenuse of 12 cm and another side of 7 cm. Triangle DEF has a right angle, a hypotenuse of 12 cm and another side of 7 cm. Are the two triangles congruent? Give a reason for your answer.	
8 A storage tank is $\frac{1}{4}$ full. 65 litres of oil are added. The storage tank is now $\frac{1}{2}$ full. Work out the capacity of the storage tank.	
9 The point (3, k) lies on the line $y = -x + 2$ Work out the value of k.	
10 In a sale, the price of a sofa is reduced by 40%. (Calculator) Two weeks later it is reduced by a further 25% of the new price. The final price is £67.50. Work out the original price of the sofa.	