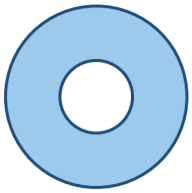
Day 52	A Tier 10-a-day
1 The number of visitors to a museum changes from 800 to 1160. Work out the percentage increase.	
2 Solve the simultaneous equations $-x - y = 3$ $5x + 2y = -9$	
3 Kai invests £6000 in a savings account. (Calculator) The account pays 6% compound interest per year. Work out the amount in the account after 3 years.	
4 The diagram shows the cross-section of a metal pipe. The outer radius is 5 cm and the inner radius is 2 cm. The pipe is 30 cm long. Work out the volume of metal used. Give your answer to 3 significant figures. (Calculator) 	
5 $\frac{7}{10}$ of the books in a library are fiction. There are 168 fiction books. Work out the total number of books in the library.	

Day 52	A Tier 10-a-day
6 y is inversely proportional to x. When x = 5, y = 6. (a) Find a formula for y in terms of x. (b) Work out the value of y when x = 10.	
7 The mean mark of 14 boys in a test is 52. The mean mark of 6 girls in the same test is 62. Work out the mean mark of all 20 people.	
8 Solve $\frac{3}{(x+1)} + \frac{1}{(x-3)} = 1$	
9 (a) Show that $0.\dot{7}\dot{4} = \frac{74}{99}$ (b) Hence write $4.\dot{7}\dot{4}$ as a mixed number in its simplest form.	
10 The length and width of a rectangle are 10.7 cm and 10.8 cm. Each measurement is correct to 1 decimal place. Work out the lower bound for the area.	