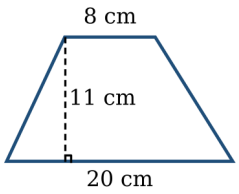
Day 259	A Tier 10-a-day
1 A sprinter travels at 35 m/s. Work out this speed in kilometres per hour.	
2 By rounding each number to 1 significant figure, estimate the value of $\frac{34.8 + 9.5}{0.99}$	
3 Solve $2x^2 - 3x - 5 = 0$	
4 A triangle has sides of length 15 m, 16 m and 8 m. Is the triangle right-angled? You must show your working.	
5 (a) Simplify $\sqrt{396}$ (b) Simplify $\sqrt{396} - \sqrt{176}$	

Day 259 **A Tier 10-a-day**

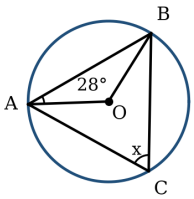
6 Solve $x^2 - 6x - 11 = 0$ by completing the square.
Give your answers in surd form.

7 Maya invests £2000 in a savings account. (Calculator)
The account pays 6% compound interest per year.
Work out the amount in the account after 3 years.

8 The diagram shows a trapezium.
Work out the area of the trapezium.
The diagram is not drawn accurately.



9 A, B and C are points on a circle with centre O.
Angle OAB = 28°.
(a) Work out angle AOB.
(b) Work out the size of angle x.
Give reasons for your answers.



10 Solve the simultaneous equations
$y = x^2 - 5x + 16$
$y = 2x + 6$