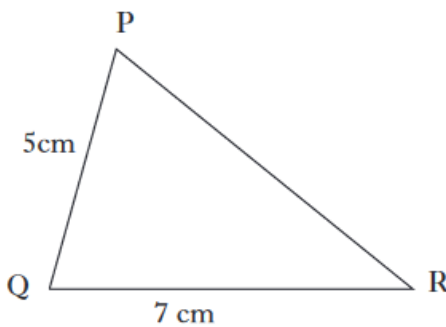
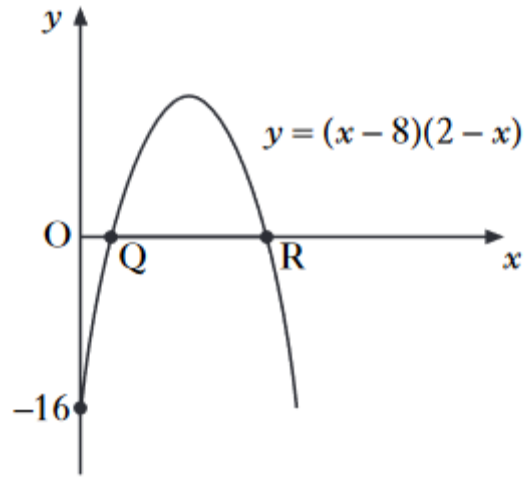


B1	Non-Calculator Paper	
1	Evaluate $3\frac{1}{8} \div \frac{5}{4}$	2
2	Multiply out the brackets and collect like terms $(2x - 5)(3x + 10)$	2
3	<p>At a ski resort in Austria the temperature, in degrees Celsius is recorded each day at noon for the first two weeks in January.</p> <p style="text-align: center;">$-6, -5, -4, -3, -2, -1, 0, 1, 1, 2, 2, 2, 4, 4$</p> <p>(a) Calculate the median and semi-interquartile range for these temperatures.</p> <p>(b) Over the same time period daily temperatures were recorded in a ski resort in Colorado. The median temperature was -1°C and the semi-interquartile range was 1.25.</p> <p>Write two statements to compare the temperatures in both resorts.</p>	3 2
4	Given that $f(x) = 5 - 3x$. Find b given that $f(b) = 11$	2
5	Factorise $2x^2 - 5x - 12$	2
6	<p>Solve, algebraically, the system of equations</p> $\begin{aligned} 3x + 5y &= 5 \\ 2x + 3y &= 4 \end{aligned}$	3
7	Express $x^2 - 4x - 3$ in the form $(x - a)^2 + b$	2
8	Simplify $\frac{x^2 - 25}{(x - 5)^2}$	2
9	Simplify $m^5 \times \sqrt{m}$	2
10	<p>In the triangle PQR:</p> <ul style="list-style-type: none"> • PQ is 5 centimetres • QR is 7 centimetres • $\cos Q = \frac{1}{5}$ <p>Calculate the length of side PR.</p> <p>Give your answer as a simplified surd in the form $a\sqrt{b}$</p>	 <p style="text-align: right;">3</p>

11

The parabola shown here has an equation of $y = (x - 8)(2 - x)$.

- (a) Write down the coordinates of Q and R .
- (b) Calculate the coordinates of the turning point.



2

3

30 marks