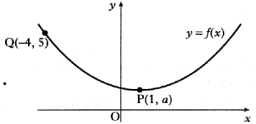
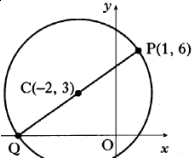


<p>151 $f(x) = 8x^2 - 5$ and $g(x) = 5 + x$</p> <p>Find $f(g(x))$ and $g(f(x))$.</p>	
<p>152 The diagram shows the graph of a function $y = f(x)$. Sketch the graphs of: $y = f(x - 4)$ and $y = 2 + f(x - 4)$.</p> 	
<p>153 A(0, -3, 5), B(7, -6, 9) and C(21, -12, 17). Show that A, B and C are collinear, stating the ratio AB:BC.</p>	
<p>154 P is the point (-1, 2, -1) and Q is (3, 2, -4). Write down \overrightarrow{PQ} in component form. Calculate the length of \overrightarrow{PQ}. Find the components of a unit vector which is parallel to \overrightarrow{PQ}.</p>	
<p>155 Prove the identity:</p> $\cos^2 Q \tan^2 Q = 1 - \cos^2 Q$	
<p>156 The point A has coordinates (7, 4). The straight lines with equations $x + 3y + 1 = 0$ and $2x + 5y = 0$ intersect at B. Find the gradient of AB.</p>	
<p>157 A triangle has vertices A(5, 5), B(-10, 0) and C(0, -10). Find the equation of the altitude from A.</p>	
<p>158 A circle has centre C(-2, 3) and passes through P(1, 6). Find the equation of the circle.</p> 	
<p>159 A sequence is defined by the recurrence relation $u_{n+1} = 0.8u_n + 12$, $u_0 = 4$. State why this sequence has a limit and find this limit.</p>	
<p>160 Calculate the area between the line $y = x + 18$ and the curve $y = x^2 - 8x + 18$.</p> 