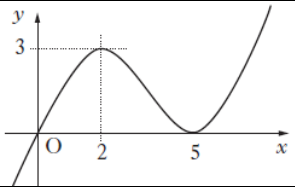


<p>191 A function f, defined on a suitable domain, is given by $f(x) = \frac{6x}{x^2+6x-16}$. What restrictions are there on the domain of f?</p>	
<p>192 The diagram shows part of the graph of $y = f(x)$. Sketch the graph of $y = 2f(x) + 1$</p> 	
<p>193 $\mathbf{p} = -\mathbf{i} + 3\mathbf{j} + 4\mathbf{k}$ and $\mathbf{q} = 7\mathbf{i} - \mathbf{j} + 5\mathbf{k}$ a) Express \overrightarrow{PQ} in component form. b) Find the length of PQ.</p>	
<p>194 The vectors $\mathbf{u} = \begin{pmatrix} 1 \\ k \\ k \end{pmatrix}$ and $\mathbf{v} = \begin{pmatrix} -6 \\ 2 \\ 5 \end{pmatrix}$ are perpendicular. What is the value of k?</p>	
<p>195 Show that: $(1 + 2\sin x)(1 - 2\sin x) = 4\cos^2 x - 3$</p>	
<p>196 Find the equation of the line through the point $(-1, 4)$ which is parallel to the line with equation $3x - y + 2 = 0$.</p>	
<p>197 A triangle has vertices $P(-2, 2)$, $Q(6, 6)$ and $R(6, -4)$ Find the equation of the perpendicular bisector of PR.</p>	
<p>198 Find P and Q, the points of intersection of the line $y = 3x - 5$ and the circle C_1 with equation $x^2 + y^2 + 2x - 4y - 15 = 0$.</p>	
<p>199 A sequence is defined by the recurrence relation $u_{n+1} = \frac{1}{4}u_n + 16$, $u_0 = 0$. Calculate the values of u_1, u_2, and u_3.</p>	
<p>200 Calculate the shaded area between the curve $y = -x^2 + 7x - 10$ and the x-axis.</p> 