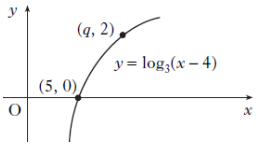
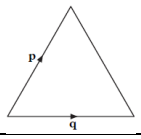
71 Functions *f* and *g* are defined on the set of real numbers by $f(x) = x^2 + 3$ and $g(x) = x + 4$. Find expressions for $f\big(g(x)\big)$ and $g\big(f(x)\big)$.	
72 The diagram shows part of the graph of $y = log_3(x - 4)$. The point $(q, 2)$ lies on the graph. What is the value of *q*? 	
73 Given that the ratio $S(-4, 5, 1), T(-16, -4, 16)$ and $U(-24, -10, 26)$ are collinear, calculate the ratio in which T divides SU.	
74 An equilateral triangle of side 3 units is shown. The vectors **p** and **q** are as represented in the diagram. What is the value of **p.q**? 	
75 Convert $135°$ into radians and convert $\frac{2\pi}{3}$ into degrees.	
76 Calculate the distance between the points (4, -1) and (7, 3).	
77 A triangle has vertices P(1, 8), Q(-12, -2) and R(8, -6). Calculate the median PS.	
78 The line with equation $y = 2x$ intersects the circle with equation $x^2 + y^2 = 5$ at the points J and K. What are the *x*-coordinates of J and K?	
79 A sequence is generated by the recurrence relation $u_{n+1} = 0.7u_n + 10$. What is the limit of this sequence as $n \to \infty$?	
80 Calculate the shaded area shown in the diagram.