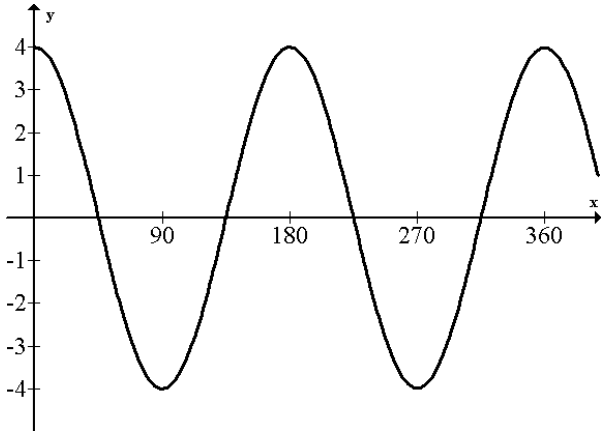
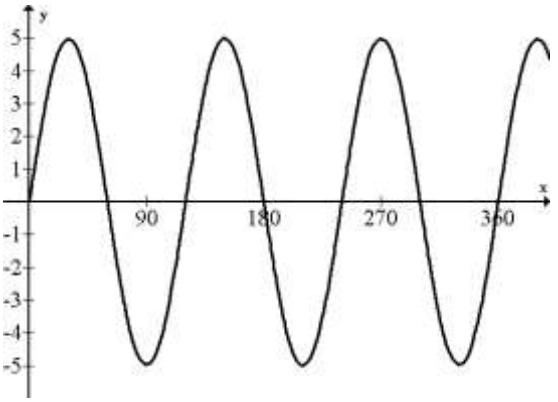
Trigonometric Graphs

1. Each graph below is of the form $y = a\sin bx$ or $y = a\cos bx$. Write down the equation of each graph.

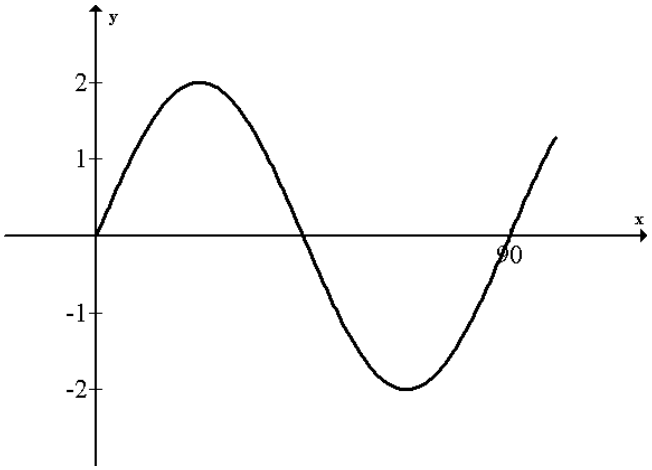
(a)



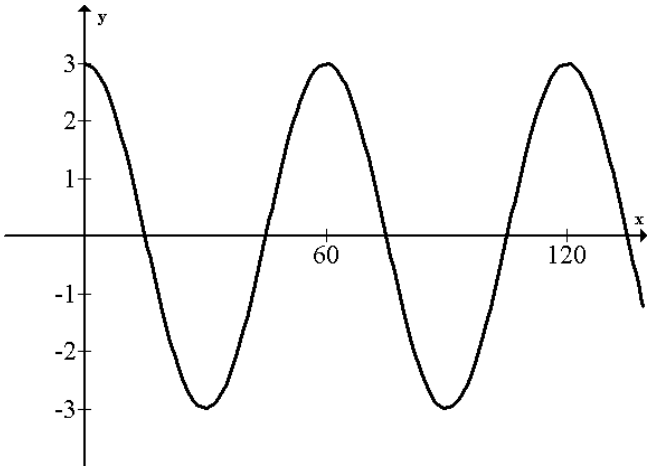
(b)



(c)

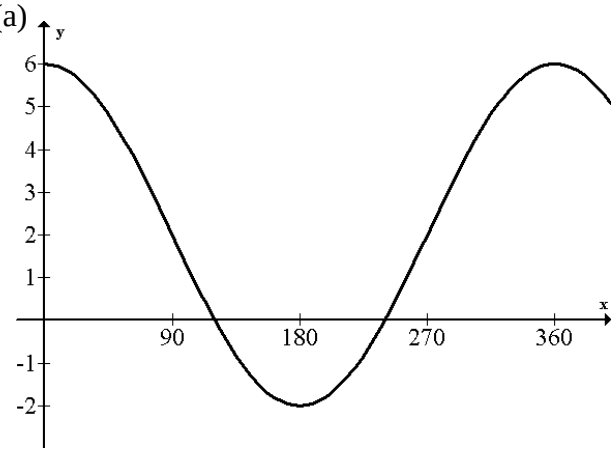


(d)

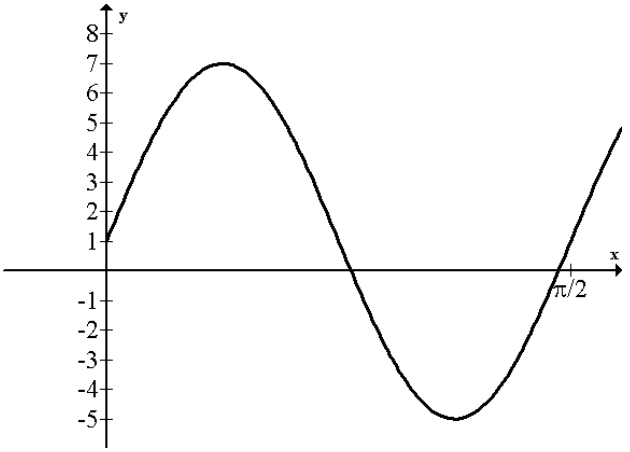


2. Write down the equation of each graph below in the form $y = a\sin bx + c$ or $y = a\cos bx + c$.

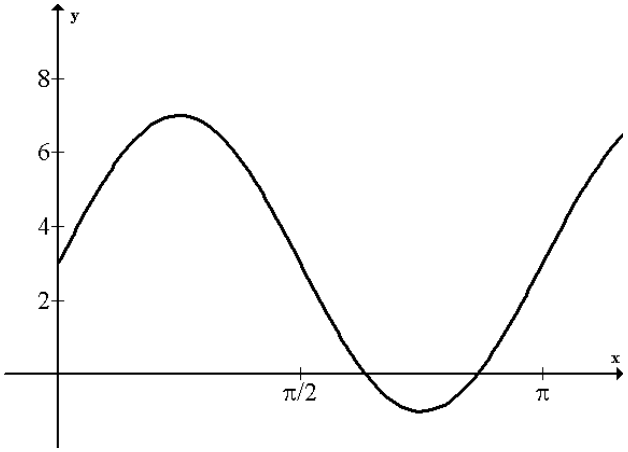
(a)



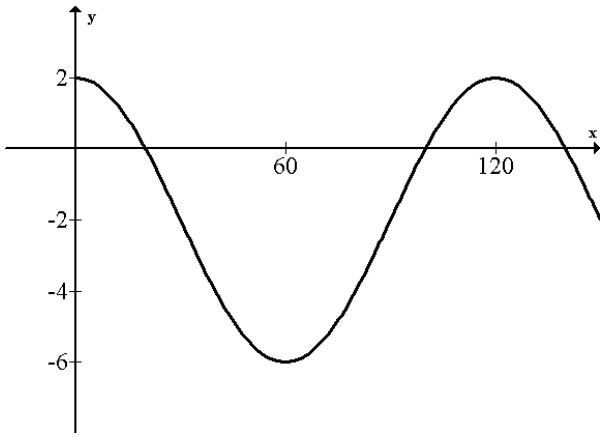
(b)



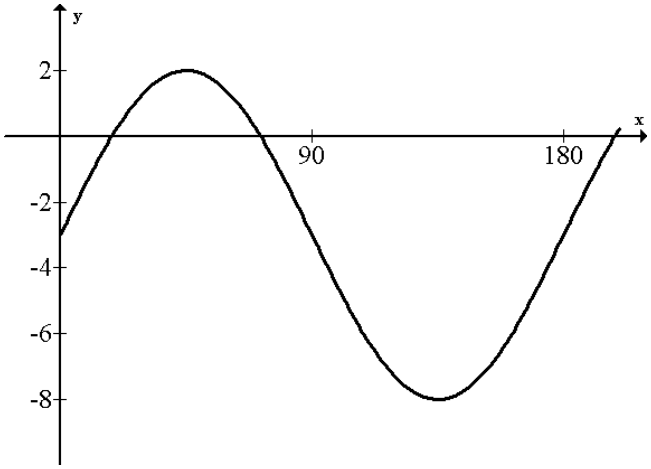
(c)



(d)

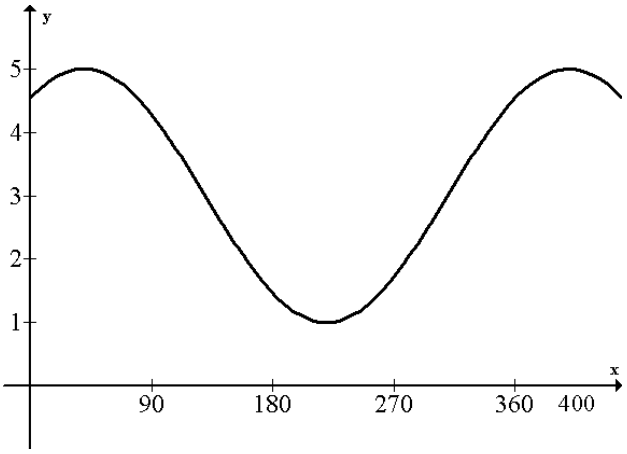


(e)



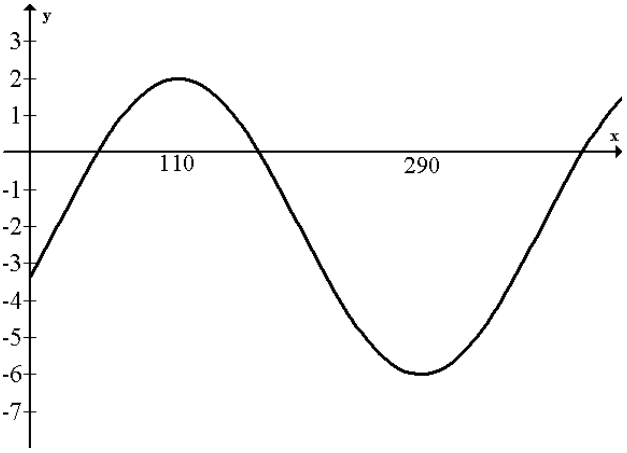
3. The graph shown opposite has equation $y = a\cos(x - b) + c$.

   Find the values of a, b and c.



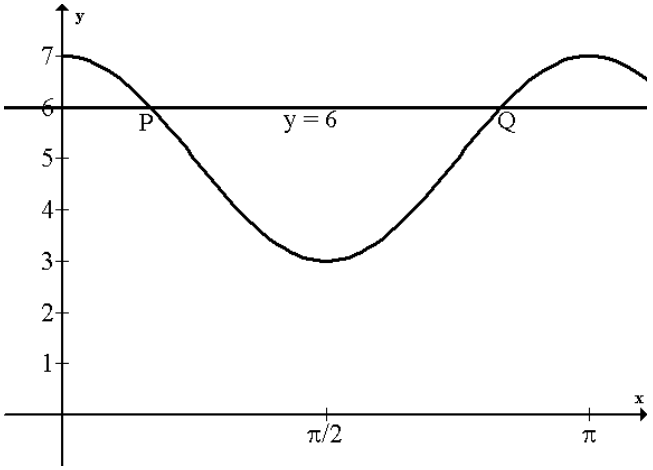
4. The graph opposite has equation $y = a\sin(x - b) + c$.

   Find the values of a, b and c.



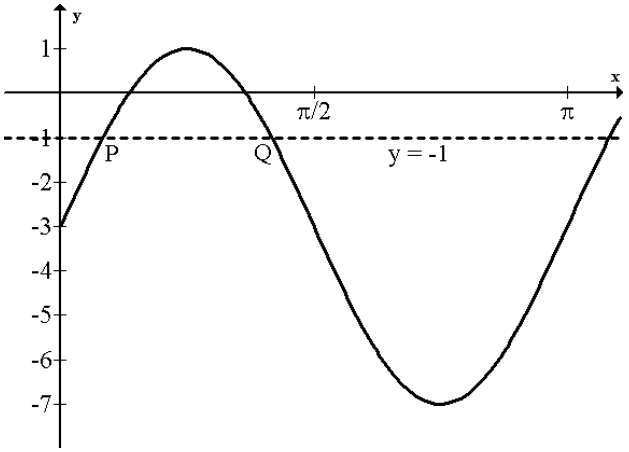
5. (a) The diagram opposite shows the graph of
$y = a\cos bx + c$.
Write down the values of a,b and c.

(b) Find the coordinates of P and Q the points of intersection of the graph in (a) with the line $y = 6$.

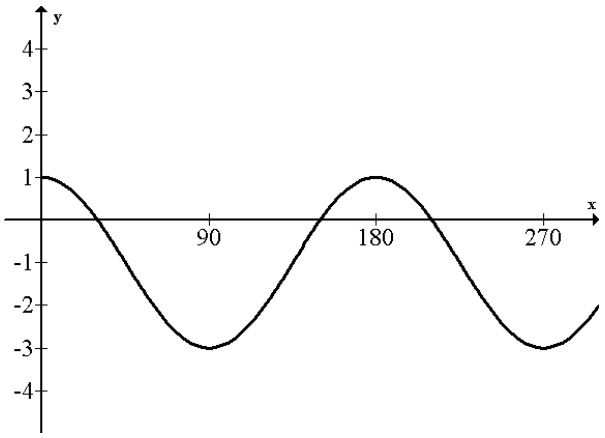


6. (a) The diagram shows the graph of
$y = a\sin bx + c$.
Write down the values of a, b and c.

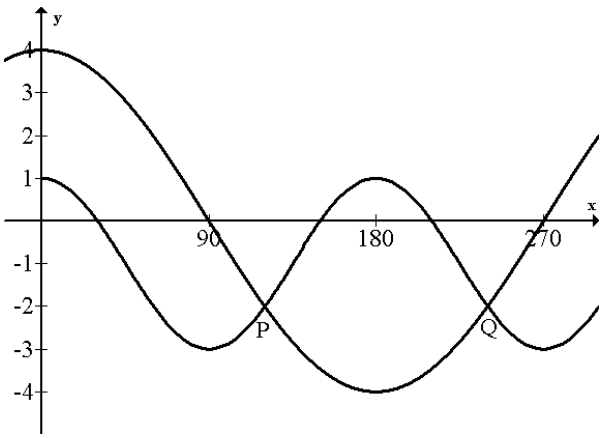
(b) Find the coordinates of P and Q the points of intersection of the graph in (a) with the line $y = -1$.



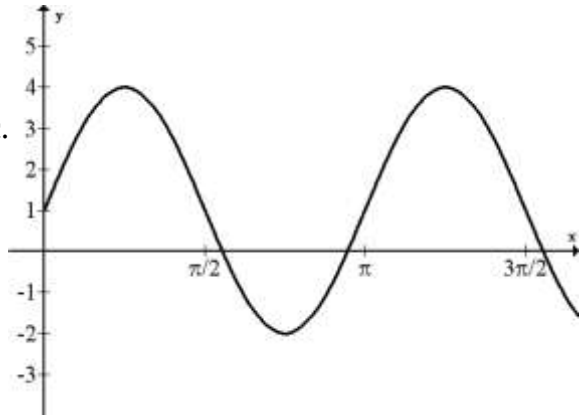
7.(a) The graph shown has equation $y = a\cos bx + c$.
Find the values of a, b and c.



(b) Find the coordinates of P and Q the points of intersection of the graph in (a) with the graph $y = 4\cos x$.



8. (a) The graph opposite has equation y = asin bx + c.
Write down the values of a, b and c.



(b) Find the coordinates of P and Q the points of the points of intersection of the graph in (a) with the graph y = 2sin x + 1.