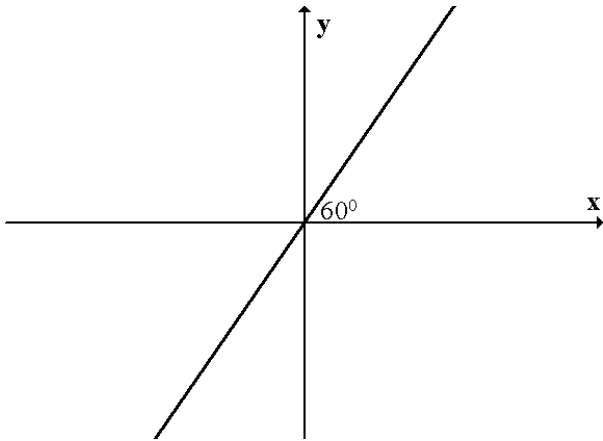


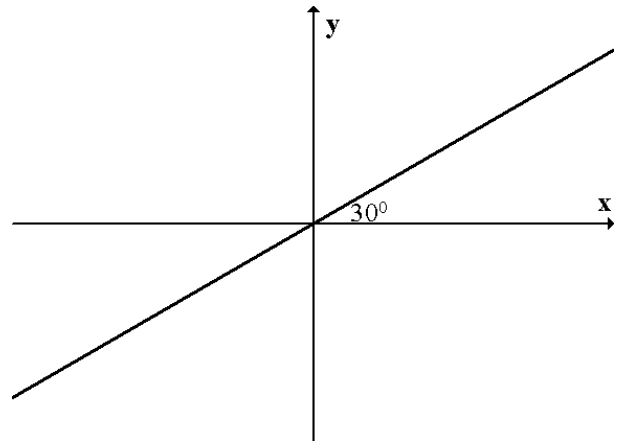
Angles

1. Calculate the gradient of each line below.

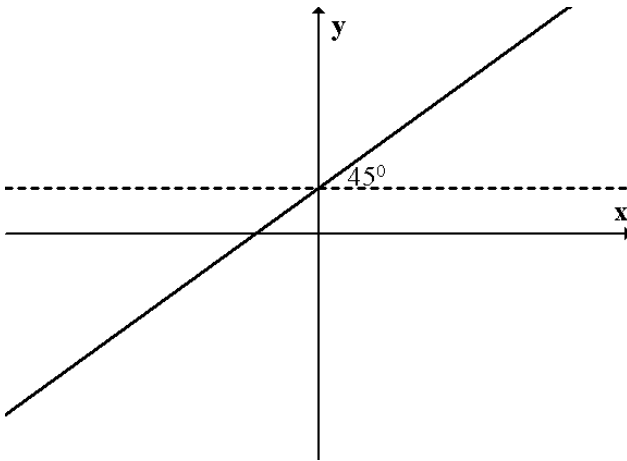
(a)



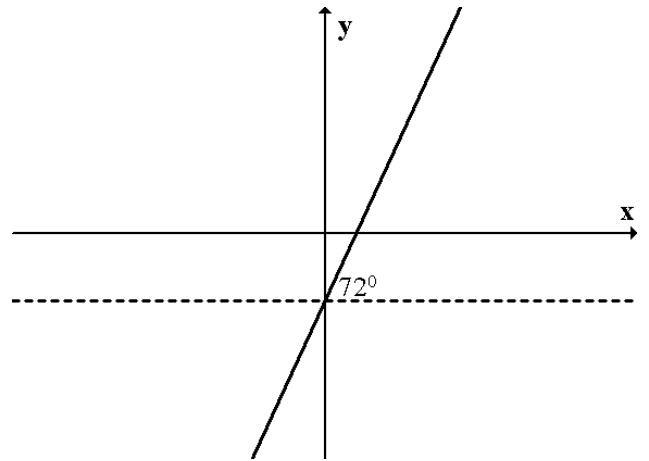
(b)



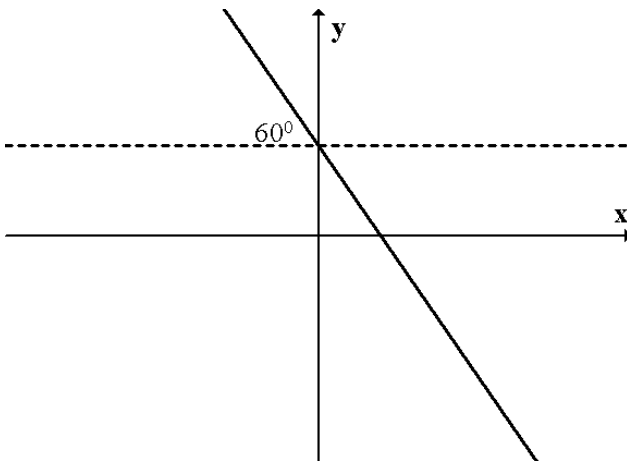
(c)



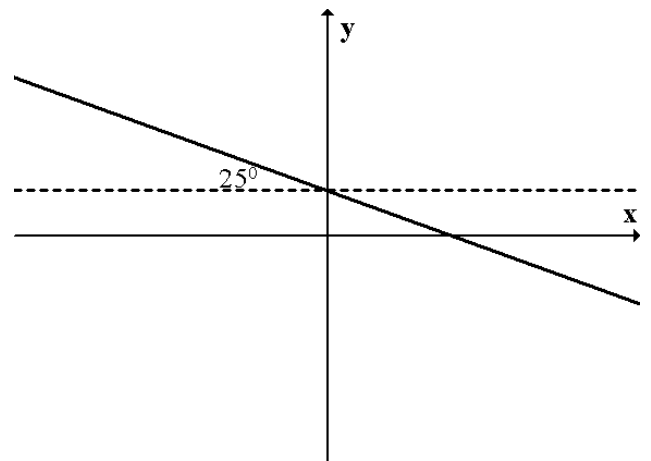
(d)



(e)

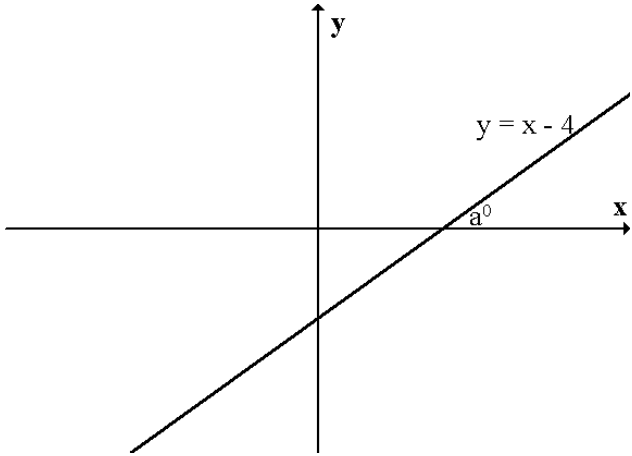


(f)

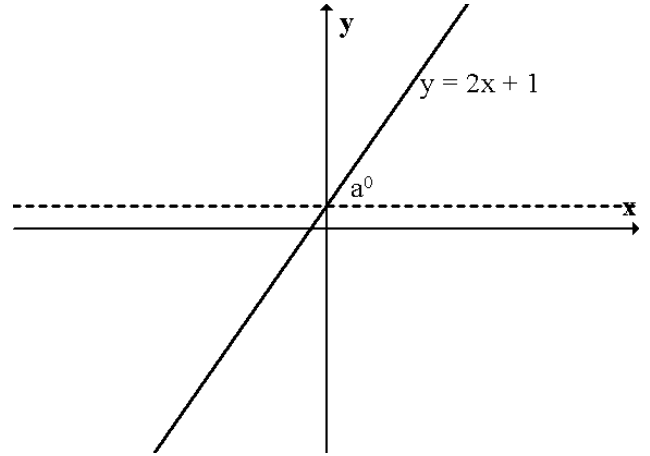


2. Calculate the size of angle a° in each of the following.

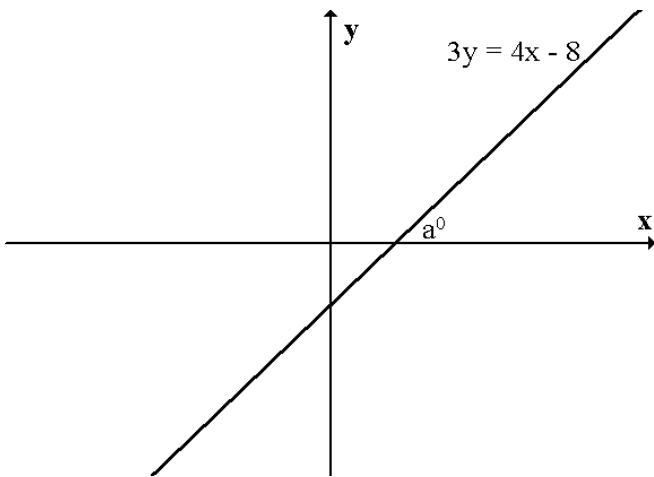
(a)



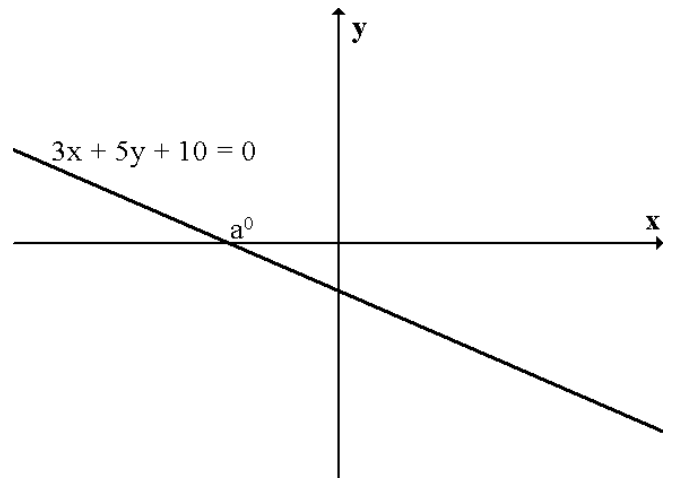
(b)



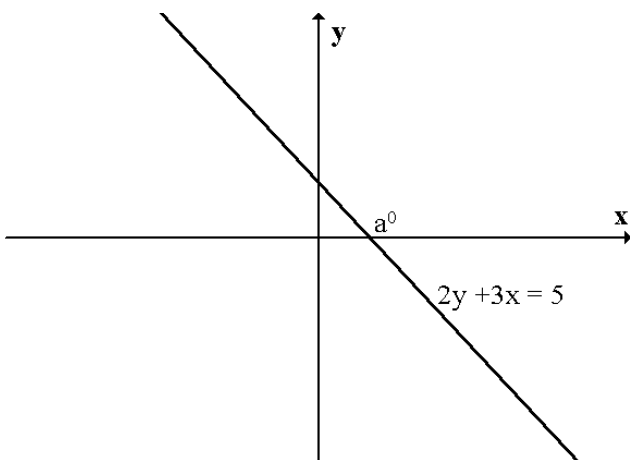
(c)



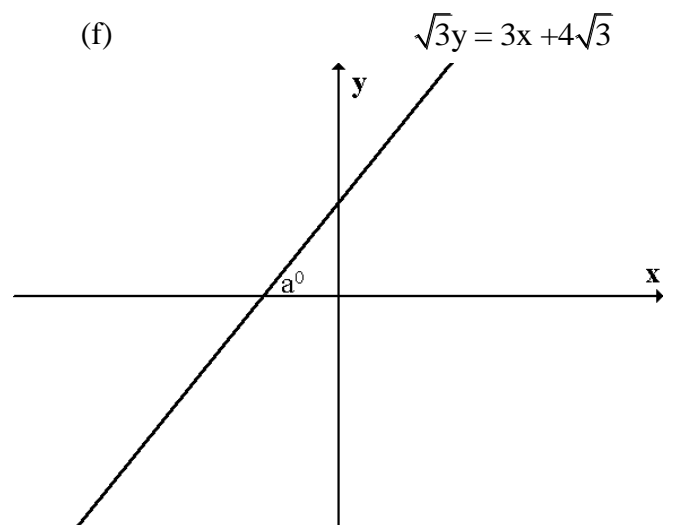
(d)



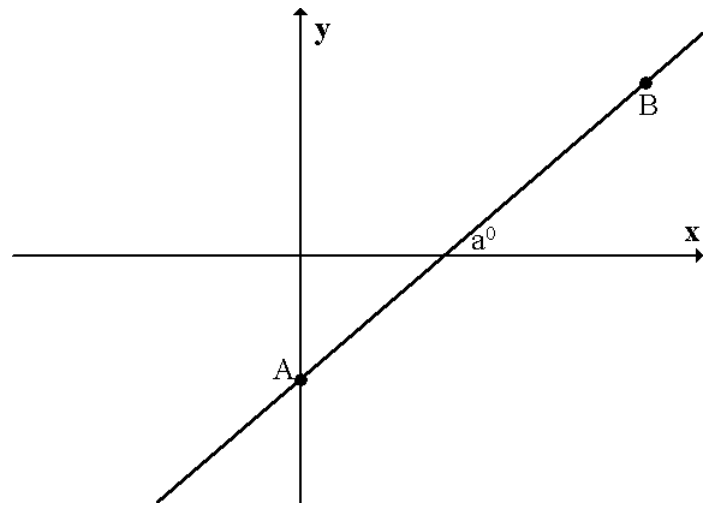
(e)



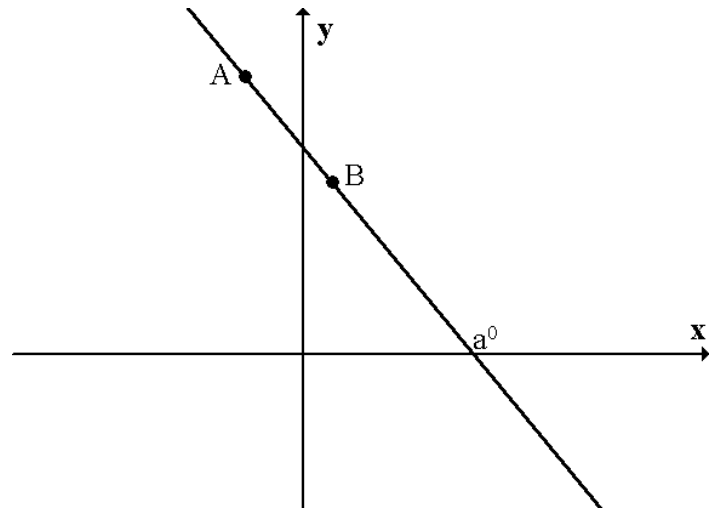
(f)



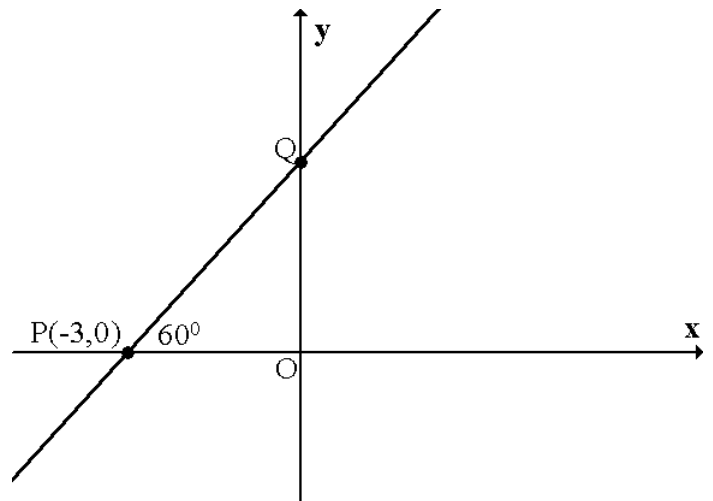
3. Find the size of angle a° that the line joining the points $A(0,-2)$ and $B(4\sqrt{3},2)$ makes with the positive direction of the x-axis.



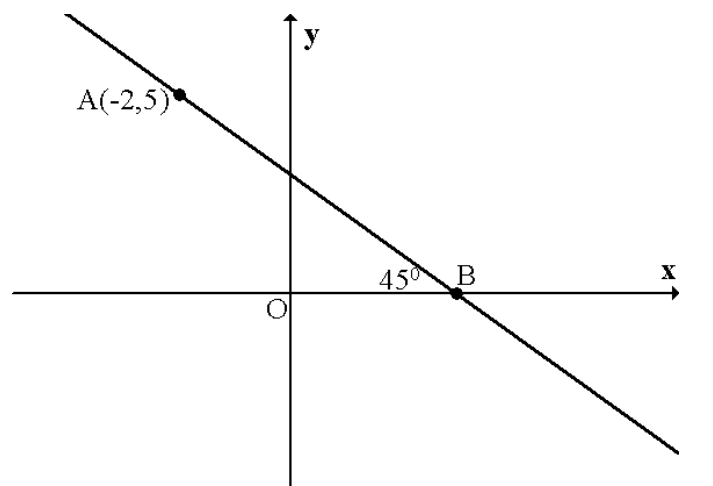
4. A is the point $(-2, 5\sqrt{3})$ and B is $(1, 2\sqrt{3})$. Calculate the size of angle a° .



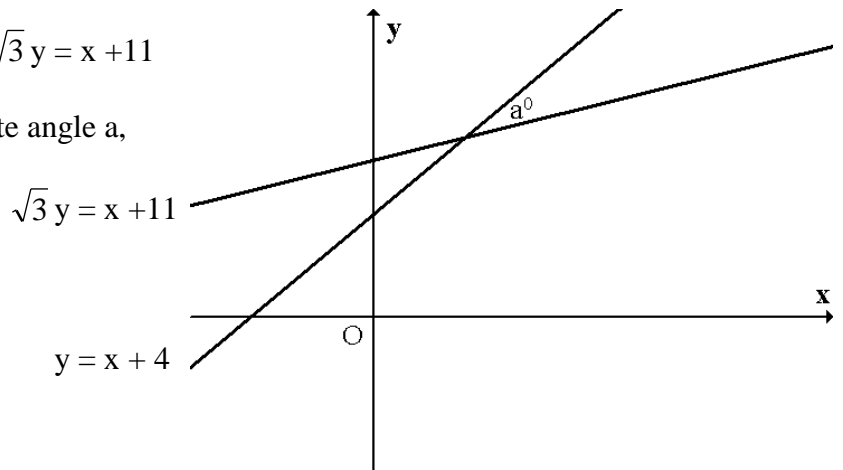
5. Find the equation of the line PQ where P is the point $(-3,0)$ and angle QPO is 60° .



6. Find the equation of the line AB where A is the point $(-2,5)$ and angle OBA is 45° .

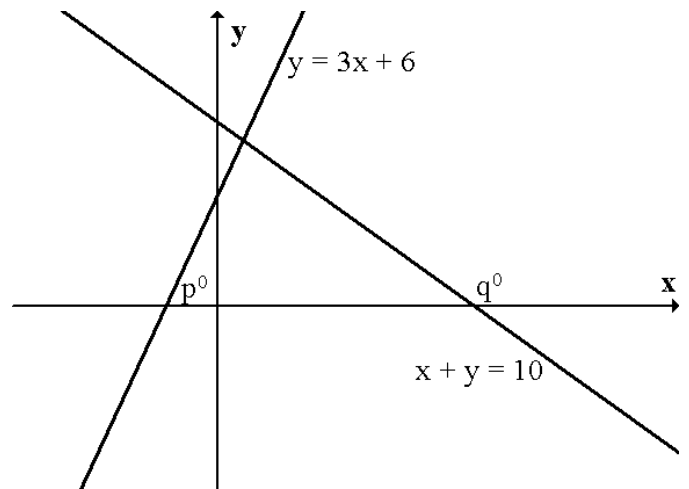


7. The two lines $y = x + 4$ and $\sqrt{3}y = x + 11$ are shown in the diagram. Determine the size of the acute angle a , between these two lines.

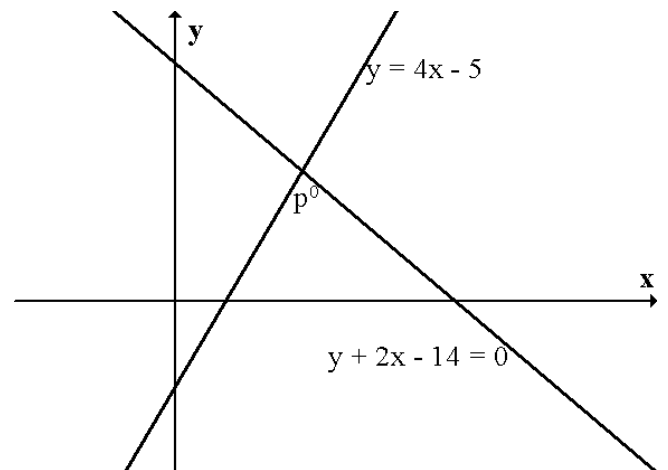


8. The lines $y = 3x + 6$ and $x + y = 10$ makes angles p° and q° with the positive direction of the x-axis, as shown.

Determine the size of the acute angle between the two given lines.



9. The diagram opposite shows the lines $y = 4x - 5$ and $y + 2x - 14 = 0$. Calculate the size of angle p° .



10. The diagram opposite shows the lines $y = 2x + 6$ and $x + y + 8 = 0$. Determine the size of angle a° .

