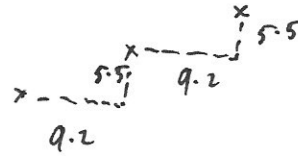




AB is a straight line

The coordinates of A are  $(-1, -7)$   
The midpoint of AB is  $(8.2, -1.5)$

Work out the coordinates of B



$(17.4, 4)$

The curve A with equation  $y = f(x)$   
is transformed to curve B with  
equation  $y = -f(x + 2)$

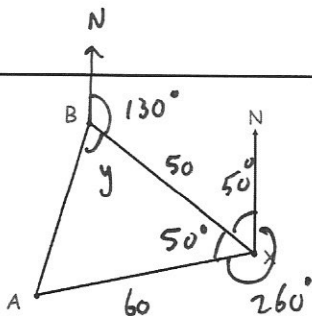
The point on A with coordinates  
 $(2, 1)$  is mapped to the point P on B

Find the coordinates of P

$(0, -1)$

Write down the exact value of  
 $\sin 60^\circ$

$$\frac{\sqrt{3}}{2}$$



Ship A is 60km from X on a bearing of  
 $260^\circ$

Ship B is 50km from X on a bearing of  
 $310^\circ$

Calculate the distance between A and  
B.

$$AB^2 = 50^2 + 60^2 - 2 \times 50 \times 60 \times \cos 50$$

$$AB = 47.36 \text{ km}$$

Calculate the bearing of A from B.

$$\frac{\sin y}{60} = \frac{\sin 50}{47.36}$$

$$y = 76.032^\circ$$

$206^\circ$