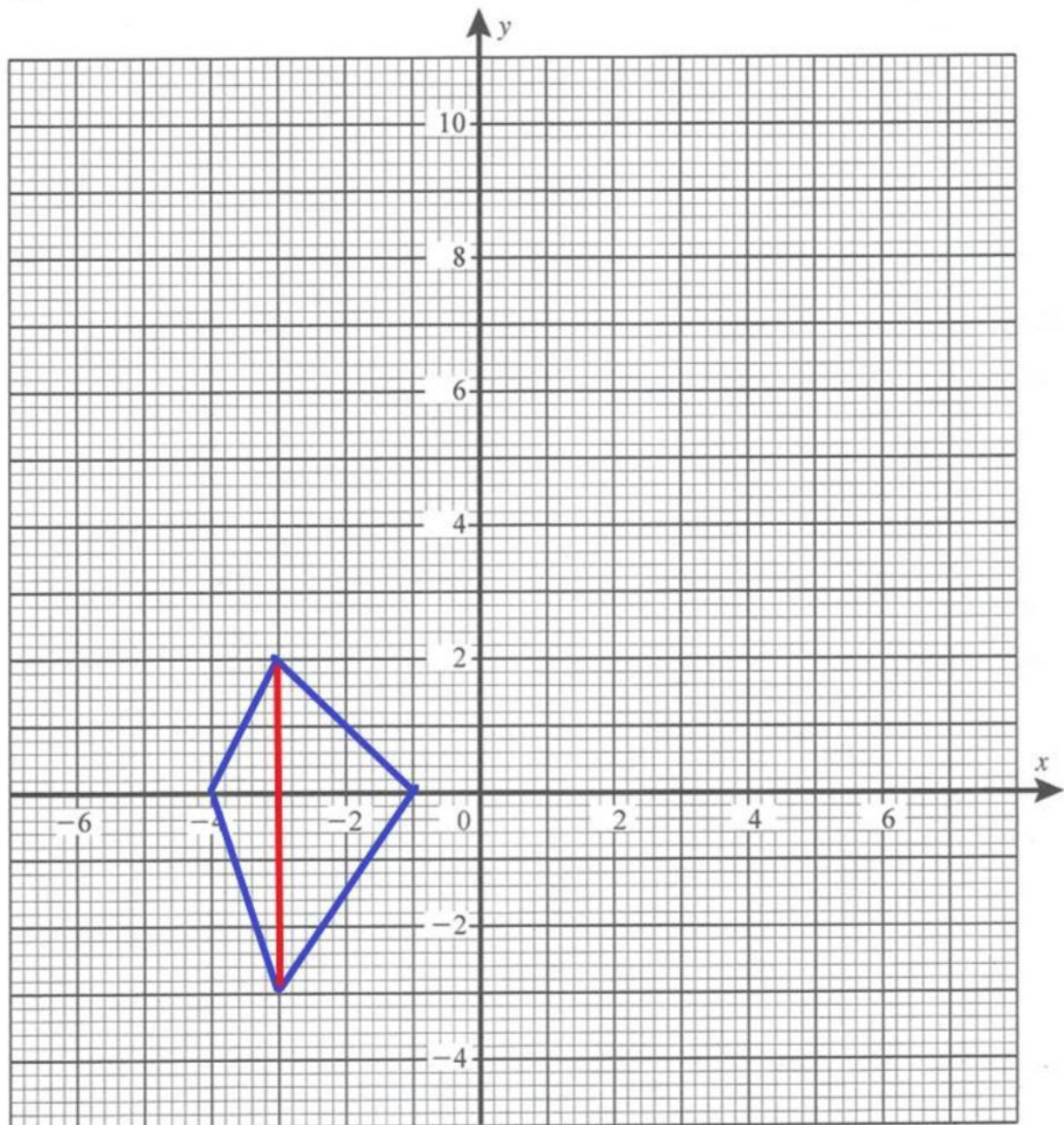


15.



(a) Plot, label and join the following points to form a quadrilateral.

$H(-4, 0)$, $I(-3, 2)$, $J(-1, 0)$, $K(-3, -3)$

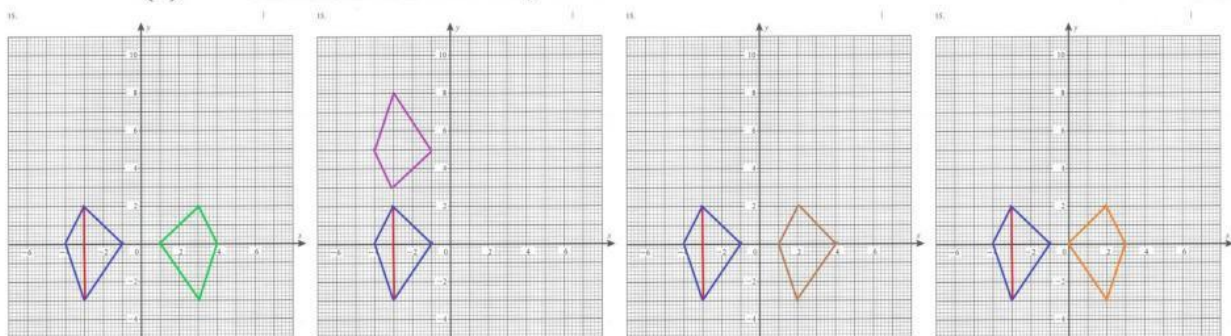
[5]

(b) Draw in the diagonal IK

[1]

(c) Reflect HIJK in the y axis

[2]



Option A

Option B

Option C

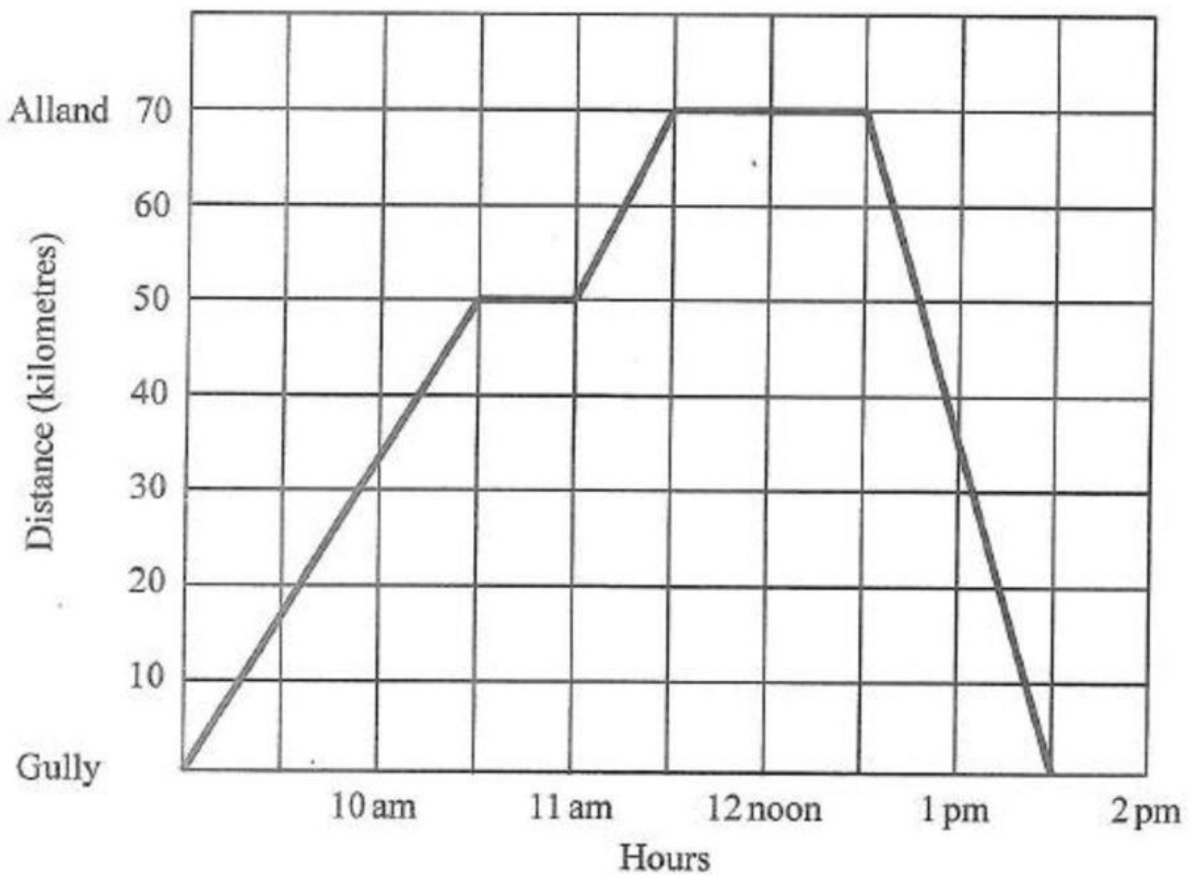
Option D

(d) Label the image $H_1I_1J_1K_1$

[1]

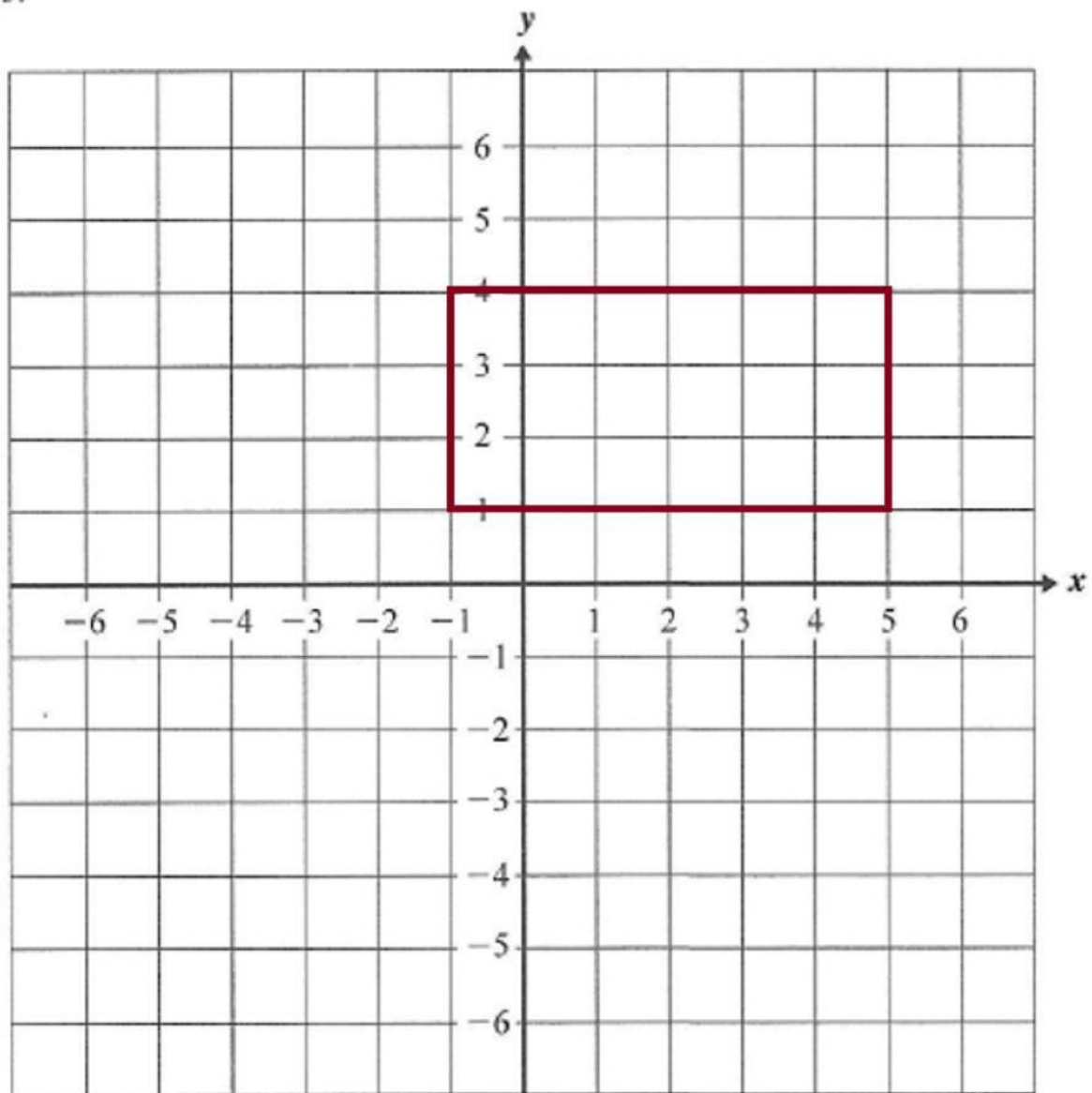
$$H_1 = (\quad , \quad) \quad I_1 = (\quad , \quad) \quad J_1 = (\quad , \quad) \quad K_1 = (\quad , \quad)$$

15. The graph below shows a car journey from Gully to Alland and back.



- (a) At what time did the journey begin? _____ [1]
- (b) How far is it from Gully to Alland? _____ [1]
- (c) How long did the car stop in Alland? _____ [1]
- (d) How long did the entire journey take? (do not include stops)
_____ [2]
- (e) How far did the car travel for the entire journey?
_____ [1]
- (f) Calculate the average speed for the entire journey. (do not include stops).
Give answer correct to nearest whole number.

15.



- (a) Plot and label the following points on the graph above.

$A(-1, 4)$, $B(-1, 1)$, $C(5, 1)$.

[3]

- (b) A point D is to be plotted to form a rectangle.

Plot and label the point D on the graph above.

[2]

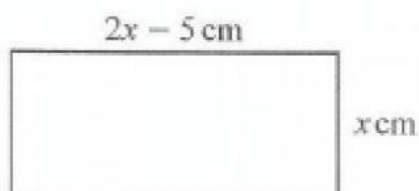
- (c) State the coordinates of D .

Answer: (_____, _____) [2]

- (d) Join all four points to form the rectangle.

[1]

15. The width of a rectangle is $2x - 5$ cm and the length is x cm



NOT TO SCALE

- (a) Write and simplify an expression for the perimeter of the rectangle.

Answer: _____ [3]

The perimeter of the rectangle is 14 cm.

- (b) Using your answer in (a), form an equation for the perimeter of the rectangle.

Simplified Equation

Answer: _____ [1]

- (c) Solve your equation.

Answer: _____ [2]

- (d) Using your value for x ,

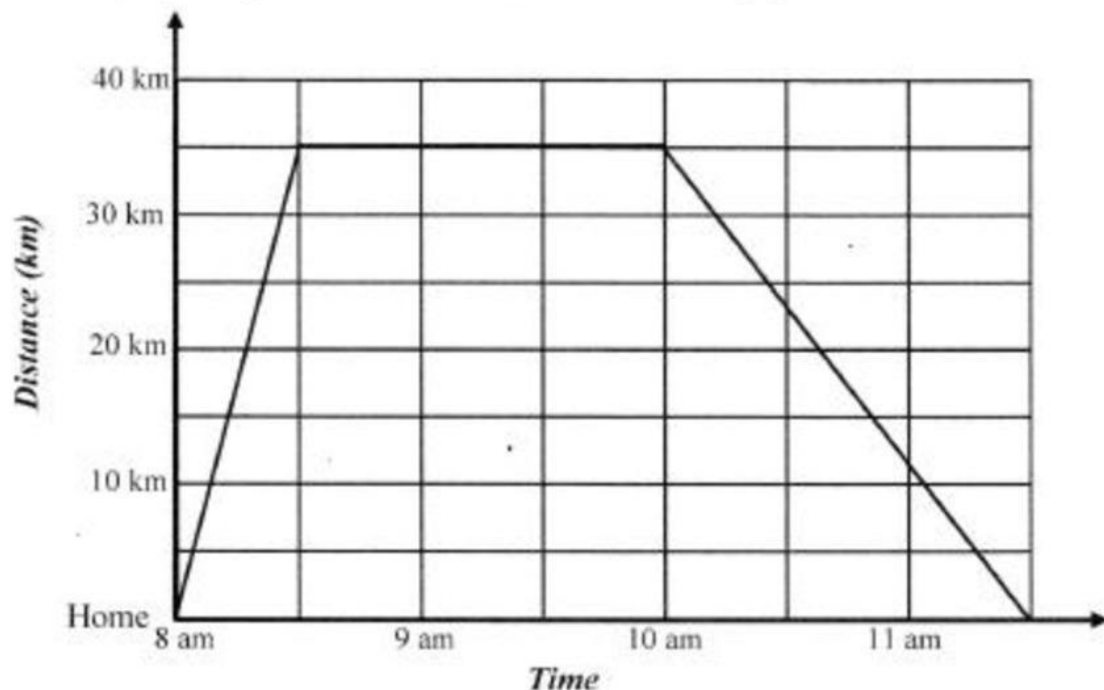
- (i) State the width of the rectangle

Answer: _____ cm [2]

- (ii) Calculate the area of the rectangle

Answer: _____ cm^2 [2]

15. The graph shows Michael's journey from home to the grocery store and back. Study the diagram and then answer the following questions.



(a) State

(i) the time Michael left home,

Answer: _____ [1]

(ii) the distance of the grocery store from Michael's home,

Answer: _____ [1]

(iii) how long Michael stayed at the grocery store,

Answer: _____ [1]

(iv) the total distance travelled by Michael.

Answer: _____ [1]

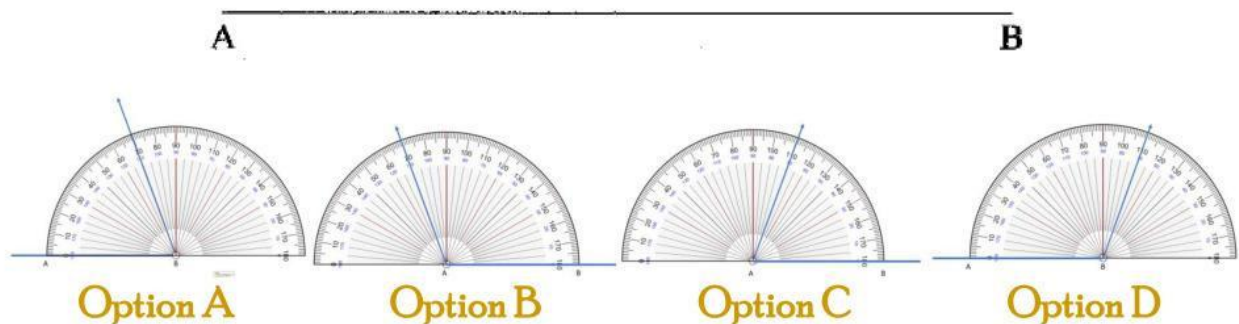
(b) Determine how long it took Michael to travel to and from the grocery store.

Answer: _____ [1]

(c) Calculate the average speed of the entire journey.

Answer: _____ [3]

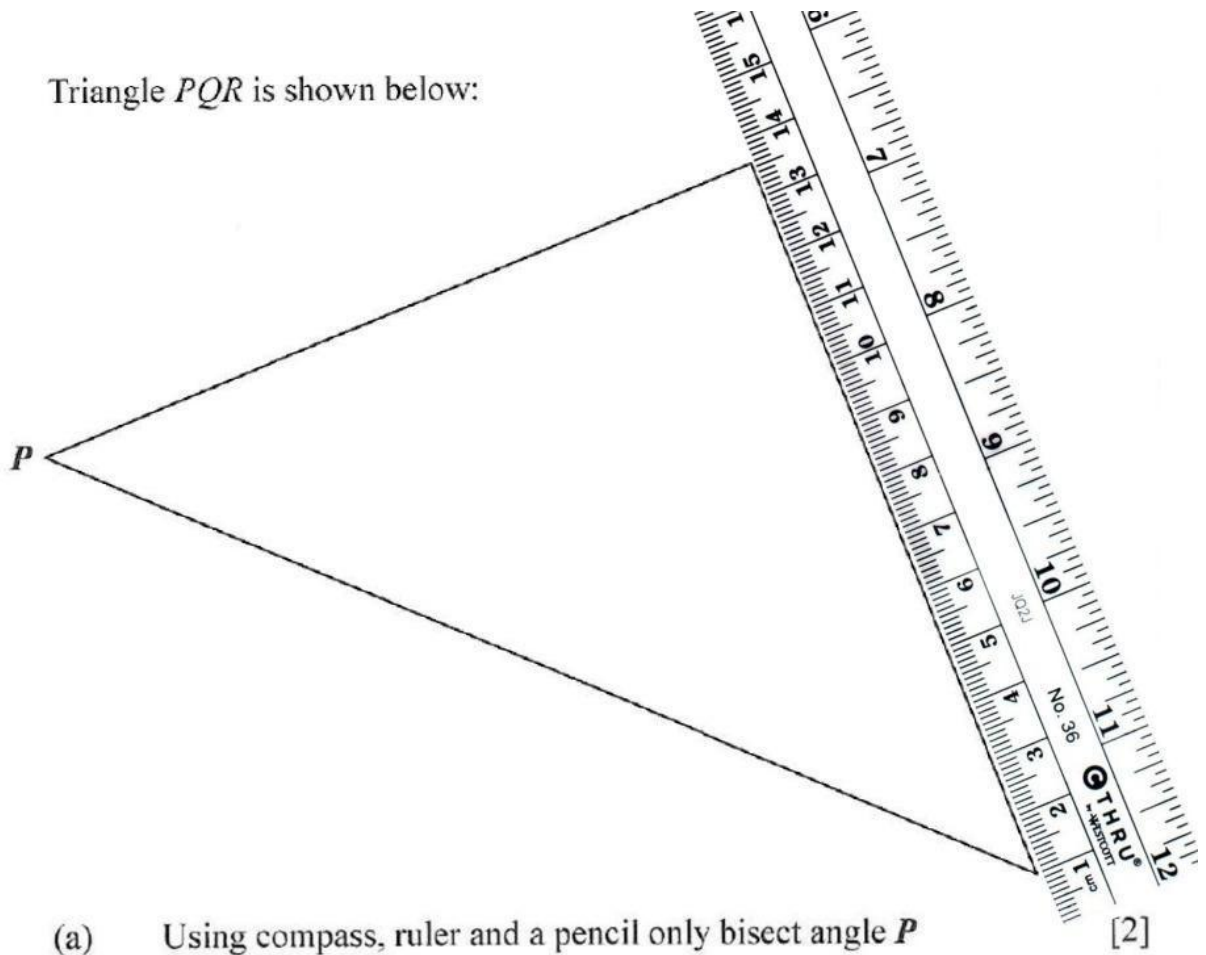
15. (a) Given the line AB below, use a protractor and draw an angle of 70° at A. [2]



(b) With a pair of compasses bisect the angle drawn in part (a). [3]

[CLICK ON LINK FOR VIDEO ON LINE BISECTION](#)

15. Triangle PQR is shown below:



- (a) Using compass, ruler and a pencil only bisect angle P [2]

CLICK ON LINK FOR VIDEO ON ANGLE BISECTION

- (b) Let the bisector of $\angle P$ meet QR at X [1]

- (c) Measure and write down the length of XQ .

Length of QR =

Length of QX =

Answer: _____ cm [1]