



Aberdare Community School  
Mathematics Department

WJEC GCSE

**Foundation – Non Calculator**  
Shape

**Loci**

Name: .....

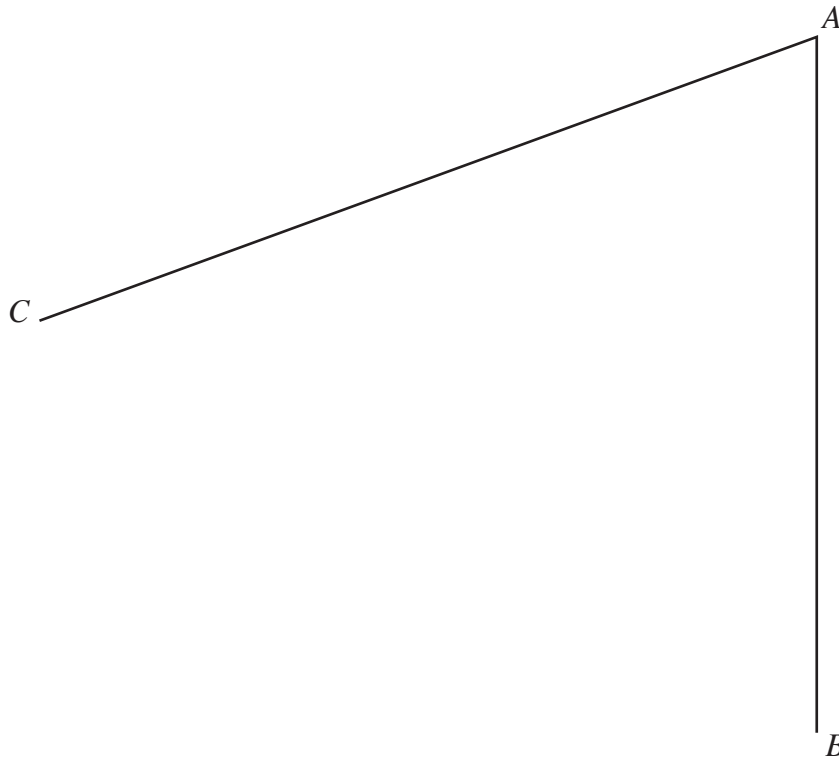
Set: .....

Date: .....

Teacher: .....

18. (a) The diagram below shows two straight lines  $AB$  and  $AC$ .  
Find and **shade** the region which satisfies **both** of the following conditions.

- (i) All points in the region are nearer to  $AC$  than to  $AB$ .
- (ii) All points in the region are less than 6 cm from  $B$ .



18. In the following diagram, shade the region which satisfies **all** of the following conditions.

The distance from  $AD$  is greater than the distance from  $DC$ .

The distance from  $D$  is less than the distance from  $C$ .

The distance from  $A$  is less than 7 cm.

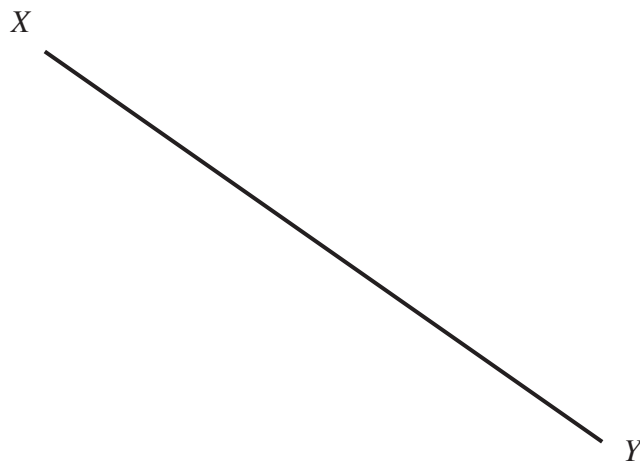
[4]



**21.** Shade the region that satisfies both of the following conditions.

- (i) The points are less than 7 cm from  $X$ .
- (ii) The points are nearer to  $Y$  than to  $X$ .

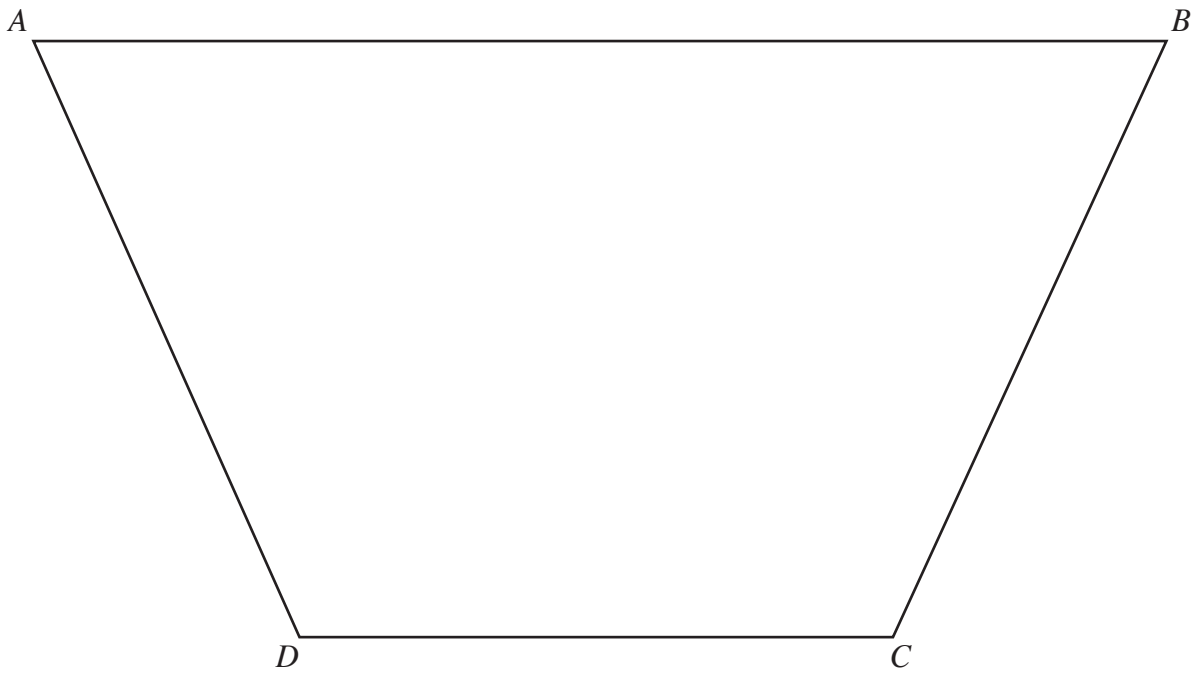
[3]



20. Find and shade the region of points inside the trapezium  $ABCD$  that satisfy **both** of the following conditions.

- (i) The points are nearer to  $AD$  than to  $DC$ .
- (ii) The points are further than 3 cm from the line  $AB$ .

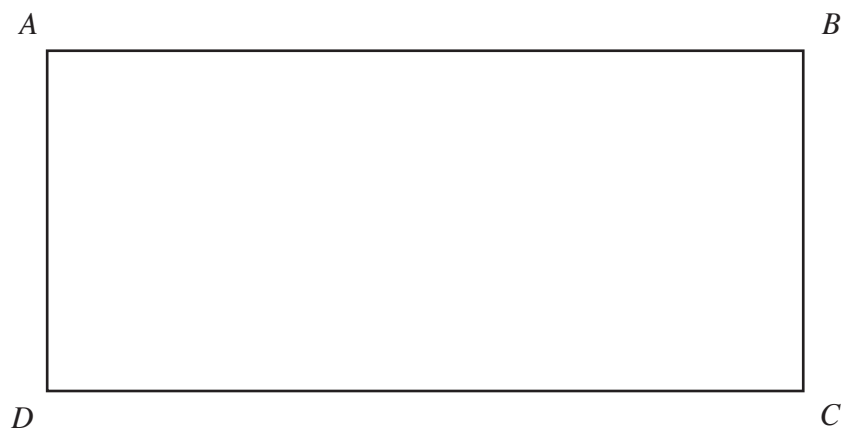
[3]



19. Find and shade the region of points within the rectangle  $ABCD$  that satisfy **both** of the following conditions.

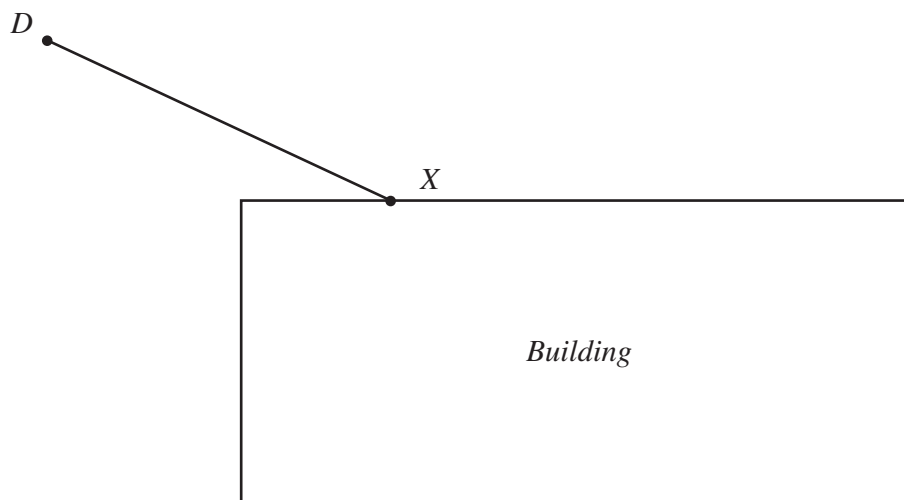
- The points are nearer to the line  $AB$  than to the line  $DC$ .
- The points are less than 6 cm from the point  $A$ .

[3]



16. The diagram represents an aerial view of a building.  
A dog,  $D$ , on a lead is tied to a side of the building at  $X$ .  
Draw the boundary of the region in which the dog can roam.

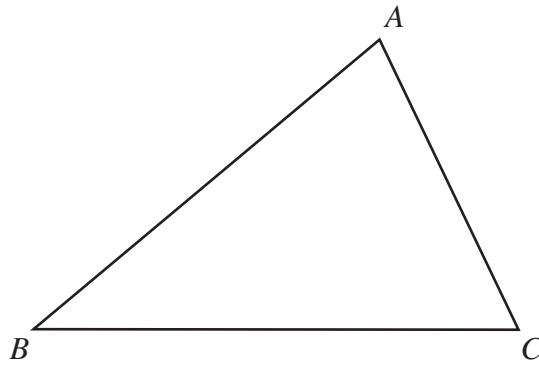
[3]



15. Find and shade the region of points inside triangle  $ABC$  that satisfy both the following conditions.

- (i) The points are nearer to  $BC$  than to  $AB$ .
- (ii) The points are less than 5 cm from  $B$ .

[3]

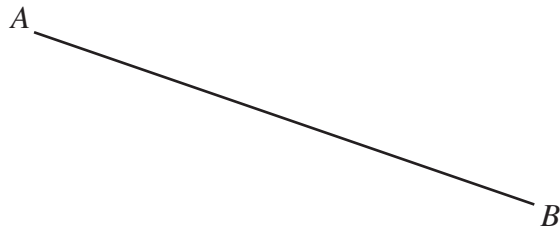




18. Shade the region that satisfies both of the following conditions.

- (i) The points are less than 4.5 cm from  $A$ .
- (ii) The points are nearer to  $B$  than to  $A$ .

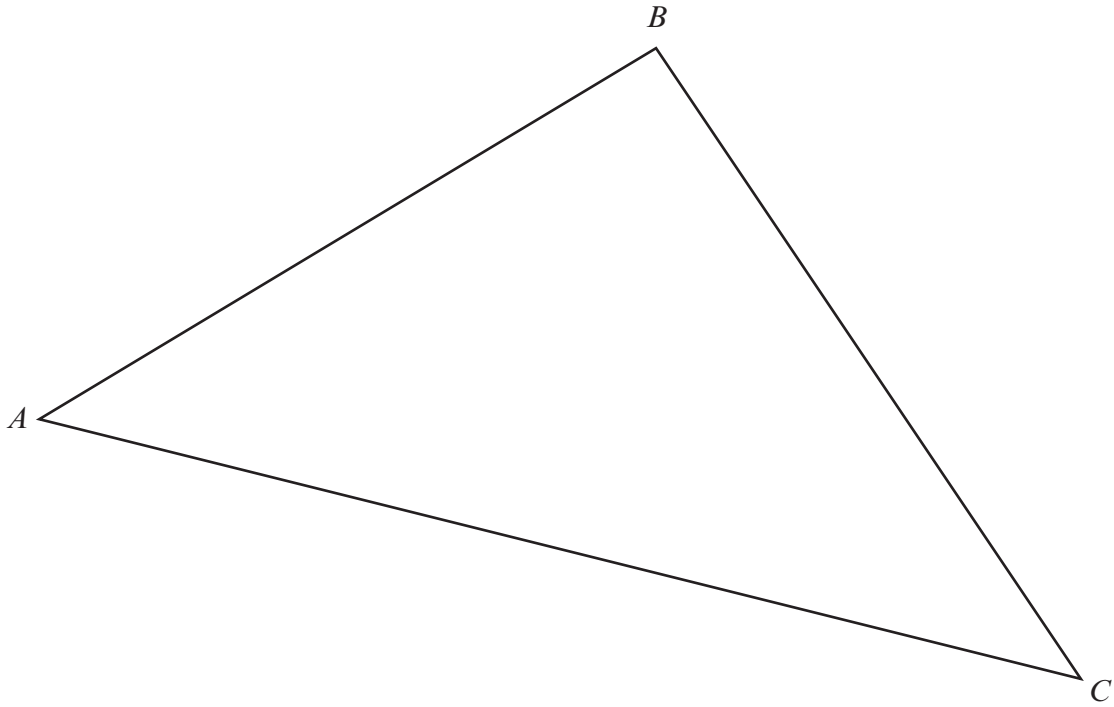
[3]



19. Find and shade the region of points inside triangle  $ABC$  that satisfy both of the following conditions.

- (i) The points are nearer to  $AC$  than to  $AB$ .
- (ii) The points are greater than 5 cm from  $A$ .

[3]



17. Find and shade the region of points that satisfy **both** of the following conditions.

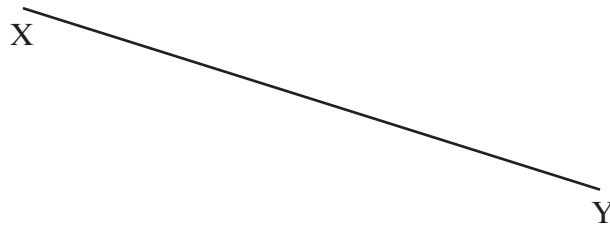
- The points are nearer to  $B$  than to  $A$ .
- The points are less than 8 cm from  $A$ .

[3]

 $A$  $B$

16. (a) Shade the region that satisfies both of the following conditions.
- (i) The points are less than 5 cm from  $X$ .
  - (ii) The points are nearer to  $Y$  than to  $X$ .

[3]



(b)



18.

(b) Find and shade the region of points within the rectangle  $ABCD$  that satisfy **both** of the following conditions.

- The points are nearer the line  $AB$  than the line  $DC$ .
- They are less than 6 cm from the point  $C$ .

[3]

