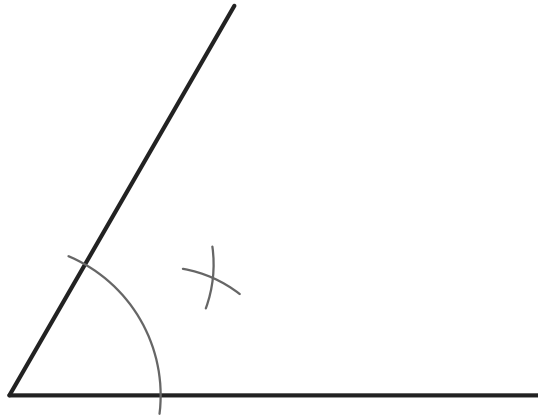


Constructing an Angle Bisector

1

Construct the bisector of the angle. Leave your arcs showing.

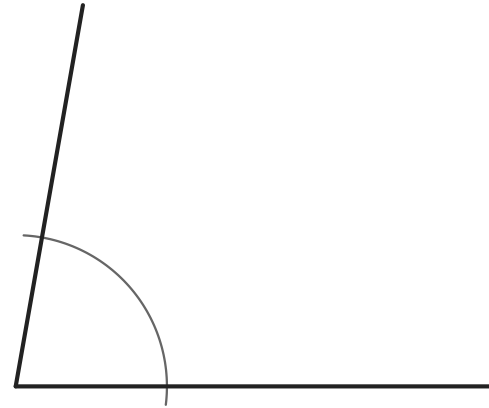
The arcs are drawn.



2

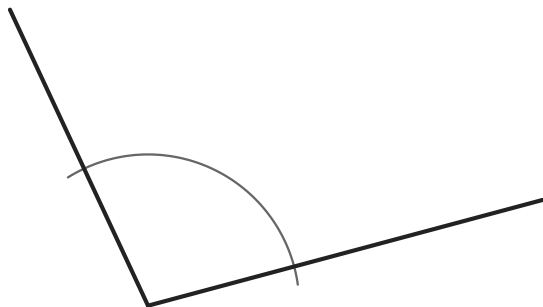
Construct the bisector of the angle. Leave your arcs showing.

The first arc is drawn.



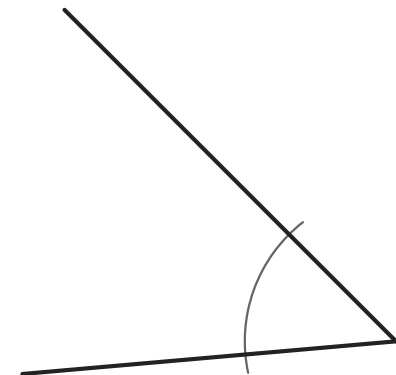
3

Construct the bisector of the angle. Leave your arcs showing.



4

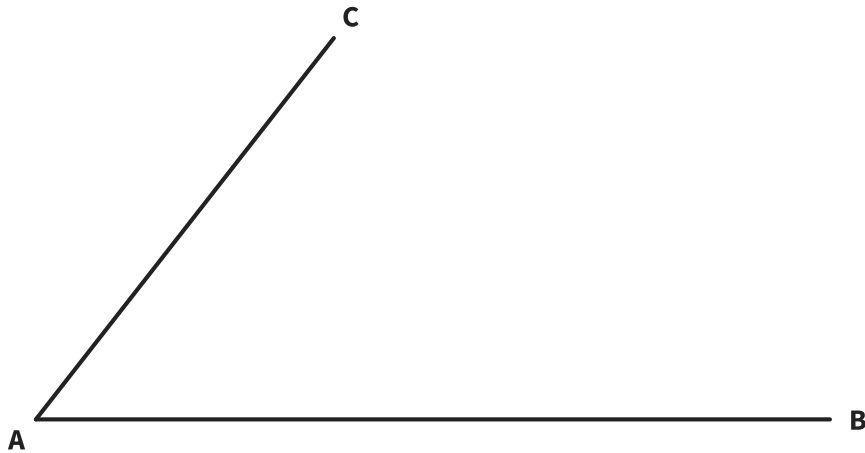
Construct the bisector of the angle. Leave your arcs showing.



Constructing an Angle Bisector

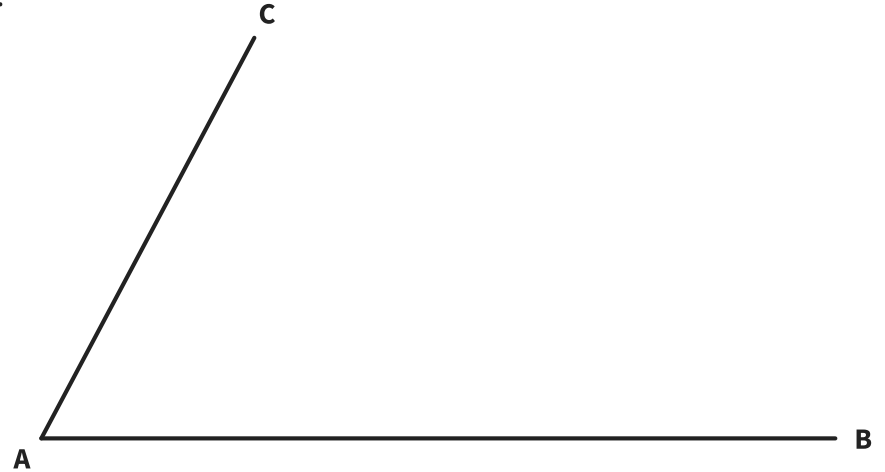
5 *Notice the change!*

Draw the locus of points that are the same distance from the line AB as from the line AC.



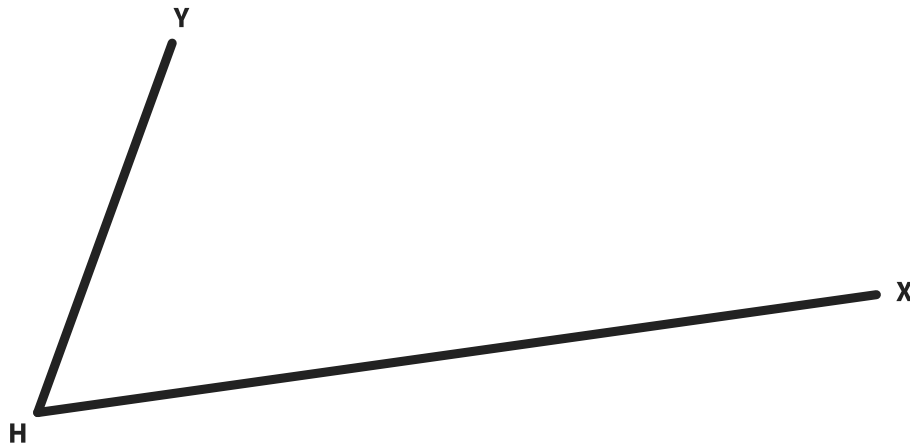
6

Shade the region inside angle BAC of points that are nearer to the line AB than to the line AC.



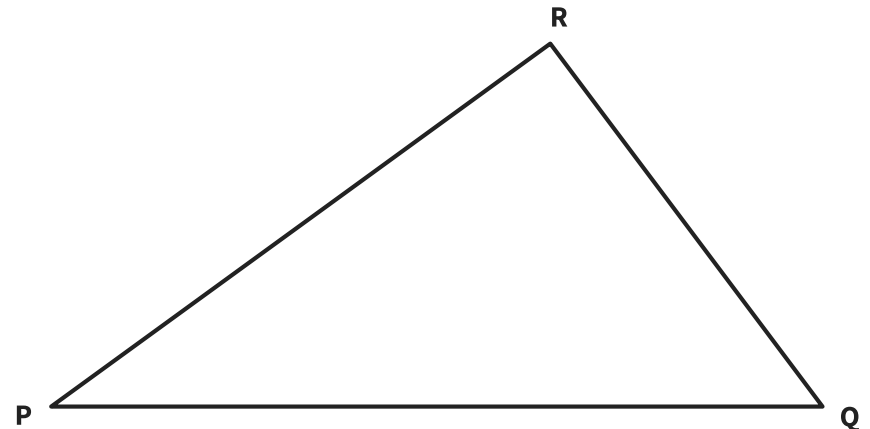
7

Two straight hedges meet at H. Sheep must stay nearer to the hedge HX than to the hedge HY. Shade where the sheep can go.



8

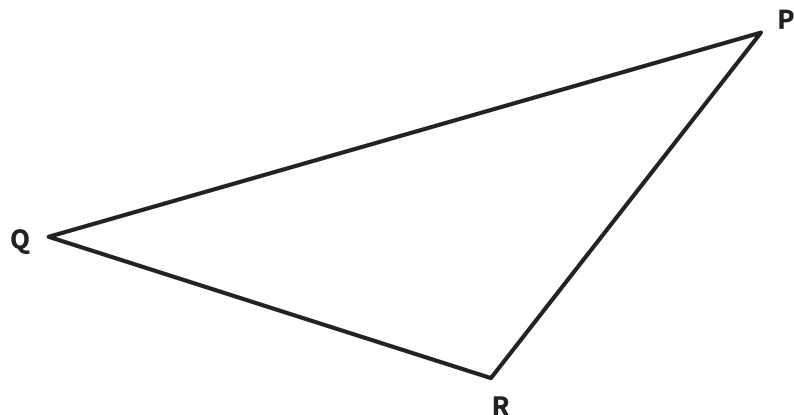
Shade the region inside triangle PQR of points that are nearer to the side PQ than to the side PR.



Constructing an Angle Bisector *further practice*

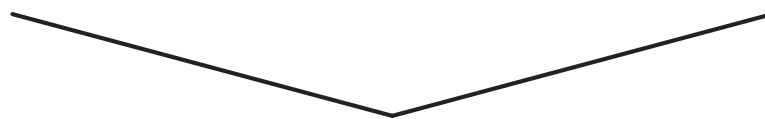
9

Construct the bisector of angle QPR.
Leave your arcs showing.



10

Construct the bisector of the angle. Then measure one of the two angles you have made.



Answer _____

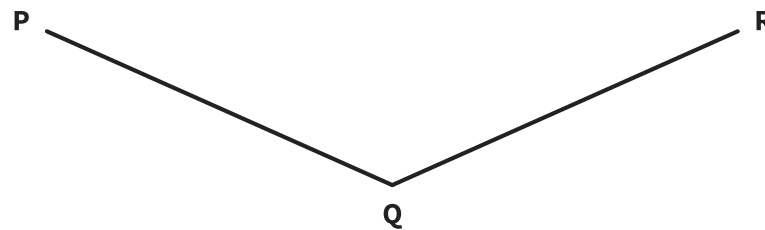
11

Angle ABC is a right angle at the corner of a picture frame. The corner is cut at 45° to both sides. Use a construction to draw the cut.



12

Use constructions to split angle PQR into four equal angles. Work out the size of each one.



Answer _____

Constructing an Angle Bisector *further practice*

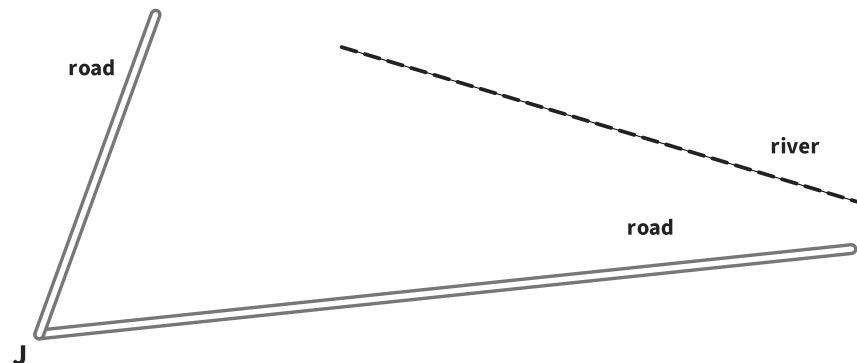
13

Use a protractor to draw an angle of 110° . Then construct its bisector.



14

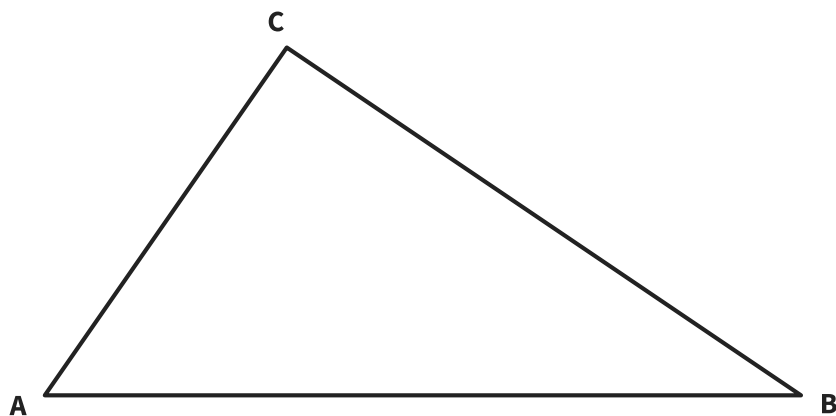
Two roads meet at junction J. A footpath splits the angle between them in half and meets the river at F. Scale: 1 cm represents 50 m. How far is J from F?



JF = _____

15

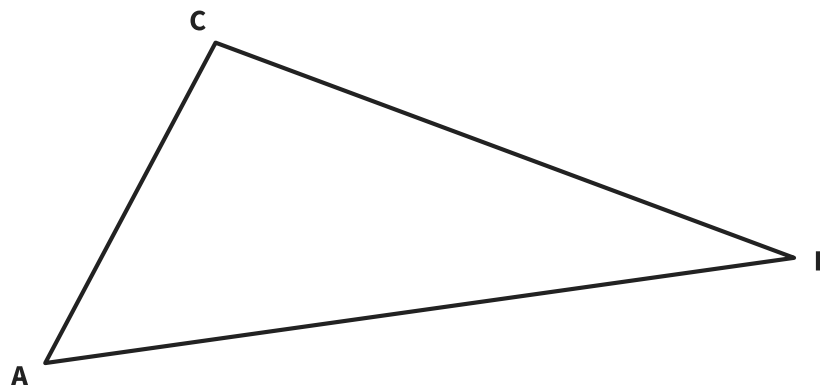
A fountain F goes where the bisectors of angles A and B of courtyard ABC cross. Construct them and mark F. Then bisect angle C. What do you notice?



Answer _____

16

Lou says the bisector of angle BAC always cuts BC in half. Construct the bisector of angle BAC. Use your drawing to show that Lou is wrong.



Answer _____