

Constructions and loci

No answers here, as requires careful checking of student work for accuracy / use of visualiser

Worked example

Construct an equilateral triangle with a side length of 10 *cm*

Your turn

Construct an equilateral triangle with a side length of 5 *cm*

Worked example

Construct a triangle with:

- A side length of 10 *cm*
- A side length of 6 *cm*
- A side length of 8 *cm*

Your turn

Construct a triangle with:

- A side length of 5 *cm*
- A side length of 3 *cm*
- A side length of 4 *cm*

Worked example

Construct a triangle with:

- A side length of 10 *cm*
- An angle of 30°
- A side length of 8 *cm*

Your turn

Construct a triangle with:

- A side length of 5 *cm*
- An angle of 30°
- A side length of 4 *cm*

Worked example

Construct a triangle with:

- An angle of 30°
- A side length of 10 cm
- An angle of 45°

Your turn

Construct a triangle with:

- An angle of 30°
- A side length of 5 cm
- An angle of 60°

Worked example

Construct a triangle with:

- An angle of 105°
- An angle of 30°
- An angle of 45°

Your turn

Construct a triangle with:

- An angle of 90°
- An angle of 30°
- An angle of 60°

Worked example

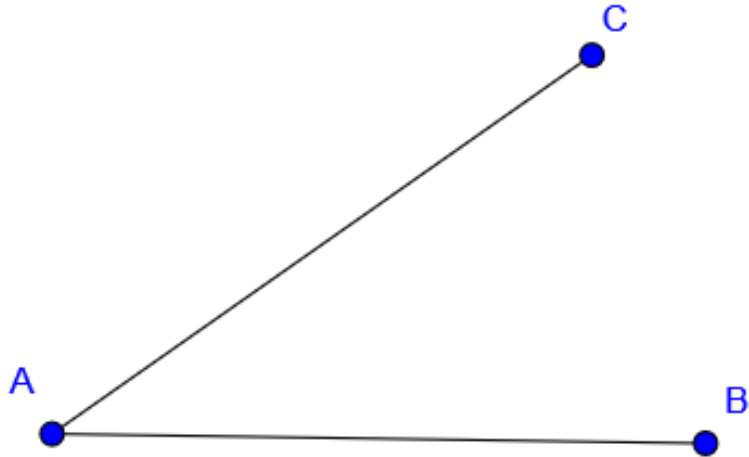
Construct an isosceles triangle with equal sides of length 10 cm and two equal angles of size 30°

Your turn

Construct an isosceles triangle with equal sides of length 5 cm and two equal angles of size 60°

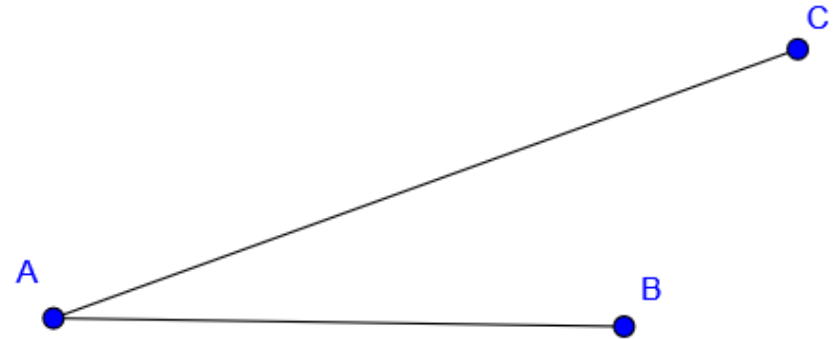
Worked example

Bisect angle BAC:



Your turn

Bisect angle BAC:



Worked example

Construct the perpendicular bisector of the line:



Your turn

Construct the perpendicular bisector of the line:



Worked example

Construct a perpendicular to the line which passes through the marked point



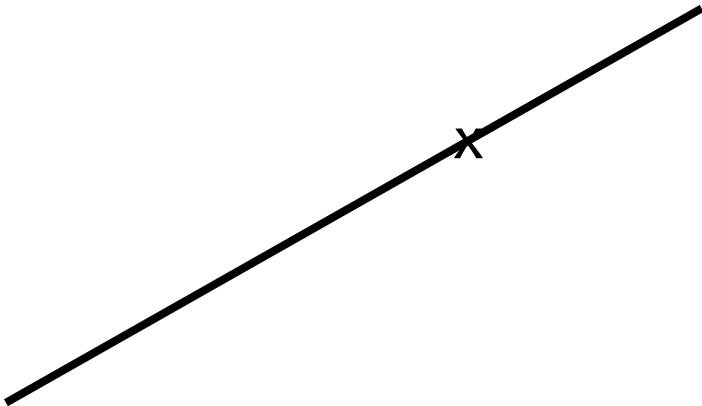
Your turn

Construct a perpendicular to the line which passes through the marked point



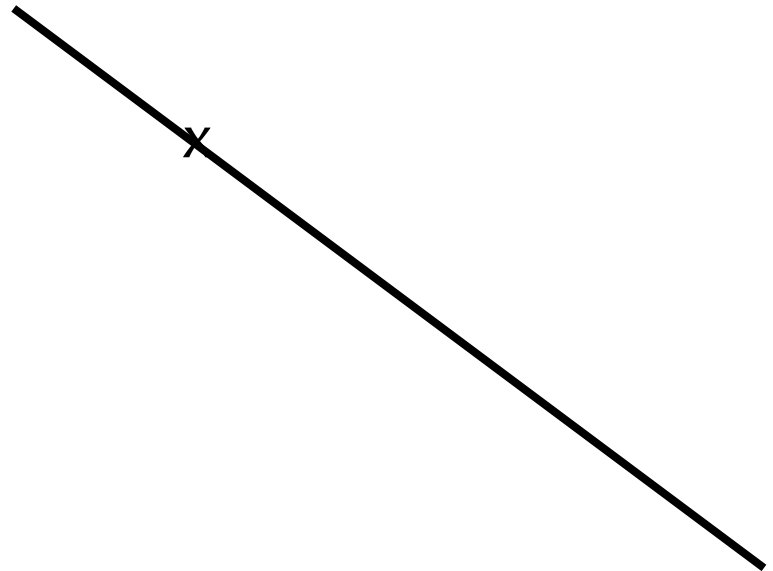
Worked example

Construct a perpendicular to the line which passes through the marked point



Your turn

Construct a perpendicular to the line which passes through the marked point



Worked example

Construct a perpendicular to the line which passes through the marked point

x



Your turn

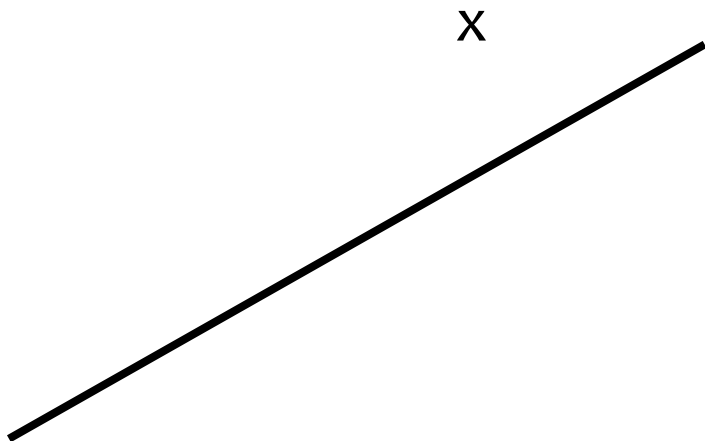
Construct a perpendicular to the line which passes through the marked point

x



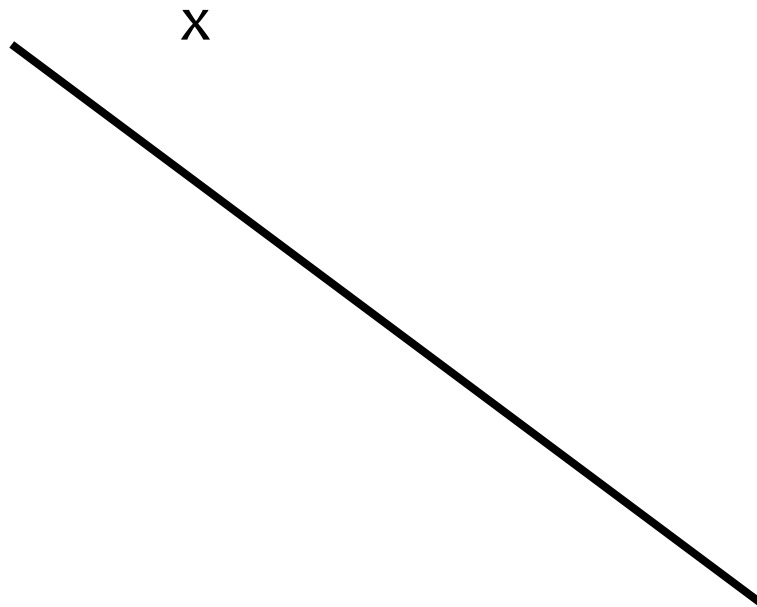
Worked example

Construct a perpendicular to the line which passes through the marked point



Your turn

Construct a perpendicular to the line which passes through the marked point



Worked example

Construct the locus of points
1 *cm* away from a point

Your turn

Construct the locus of points
2 *cm* away from a point

Worked example

Your turn

Construct the locus of points
equidistant from two points

Construct the locus of points
equidistant from two points

Worked example

Construct the locus of points
equidistant from a line

Your turn

Construct the locus of points
equidistant from a line

Worked example

Construct the locus of points
equidistant from two intersecting
lines

Your turn

Construct the locus of points
equidistant from two intersecting
lines

Worked example

Construct the locus of points
1 *cm* away from the line



Your turn

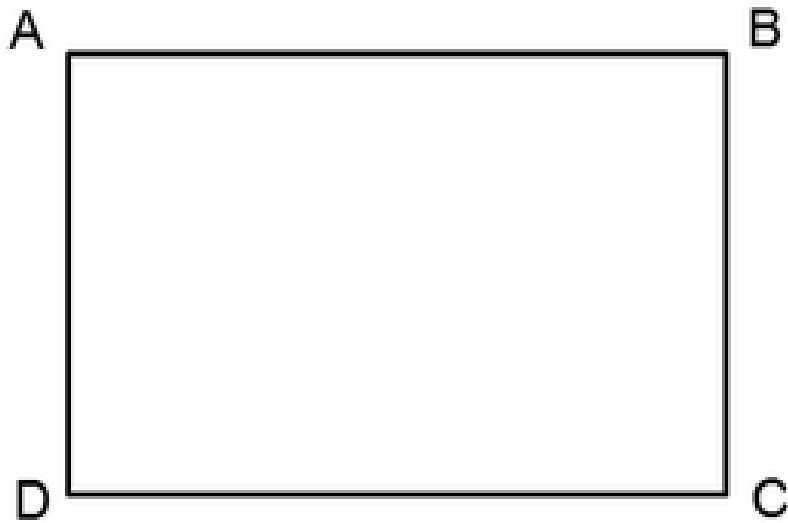
Construct the locus of points
2 *cm* away from the line



Worked example

Construct the locus of points which are:

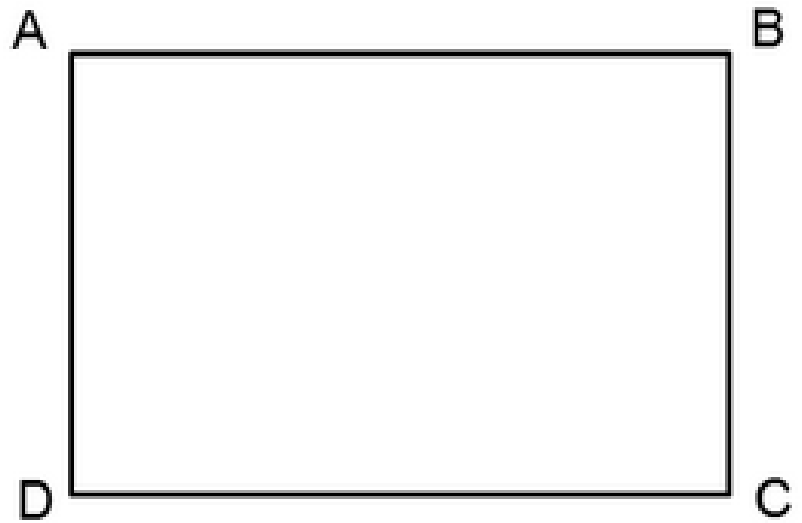
- More than 3 *cm* from AB
- More than 4 *cm* from AD



Your turn

Construct the locus of points which are:

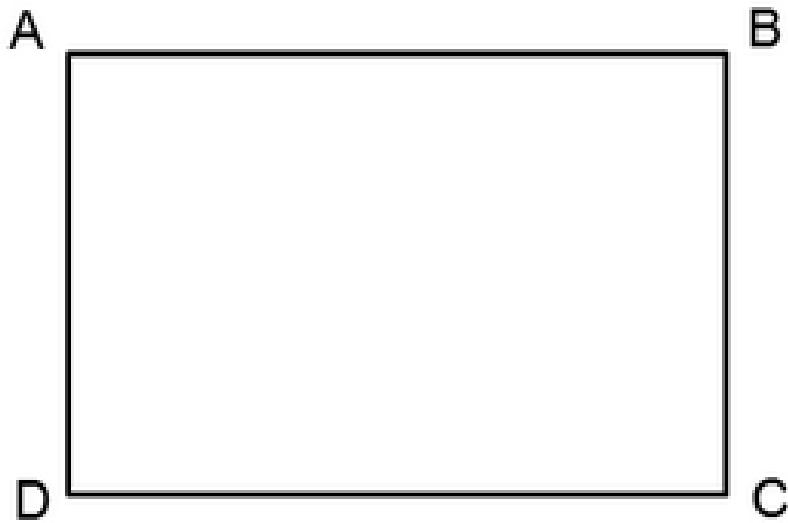
- More than 5 *cm* from AB
- More than 3 *cm* from AD



Worked example

Construct the locus of points which are:

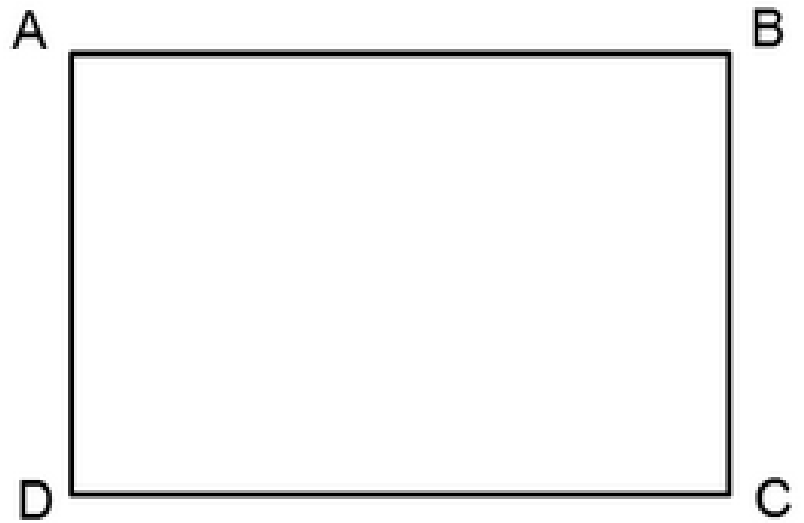
- Closer to B than A
- Closer to C than D



Your turn

Construct the locus of points which are:

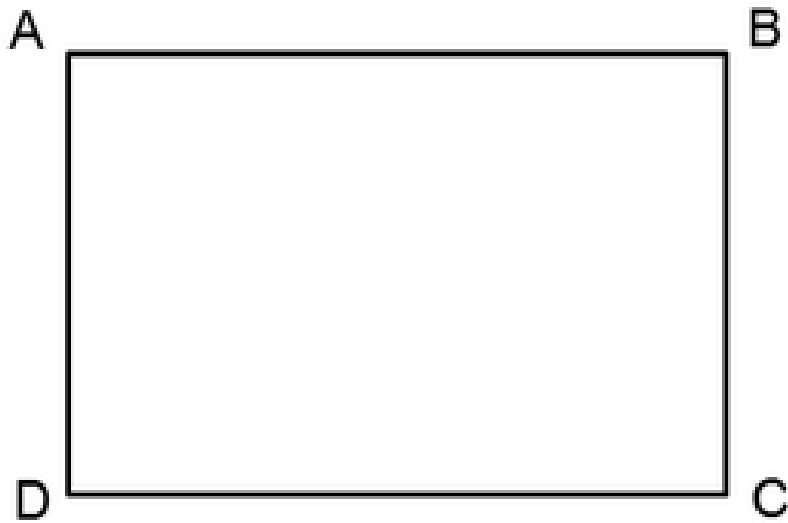
- Closer to C than B
- Closer to D than A



Worked example

Construct the locus of points which are:

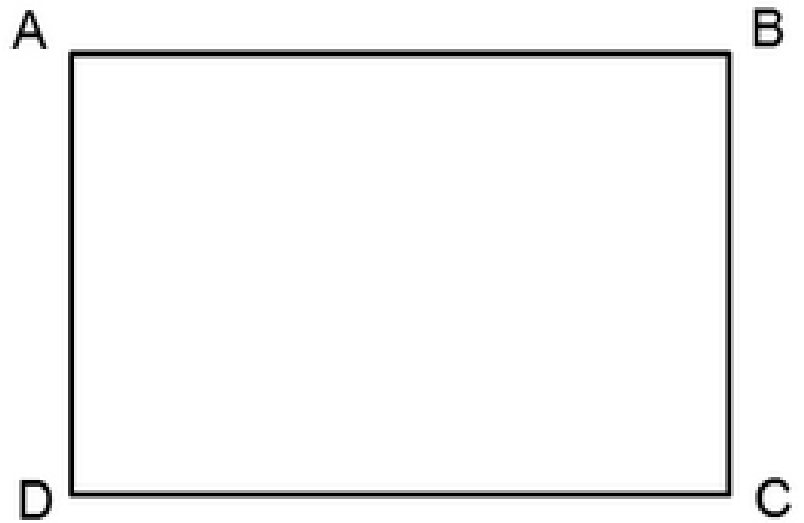
- Closer to AD than AB



Your turn

Construct the locus of points which are:

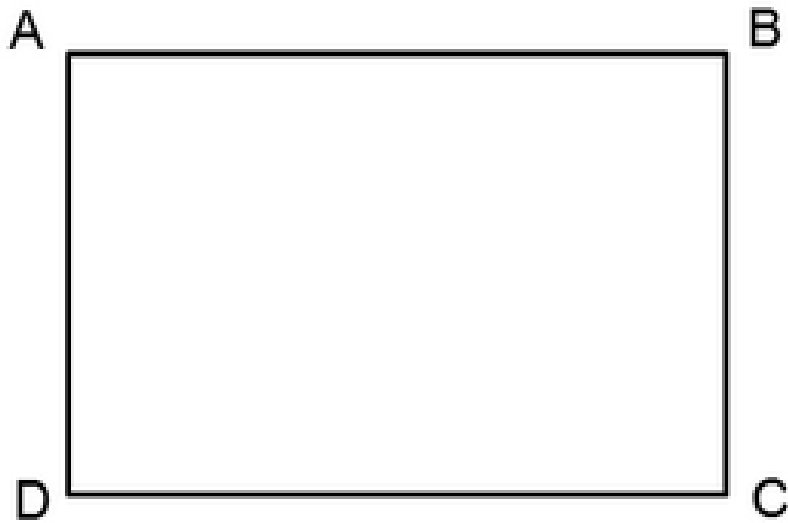
- Closer to BC than DC



Worked example

Construct the locus of points which are:

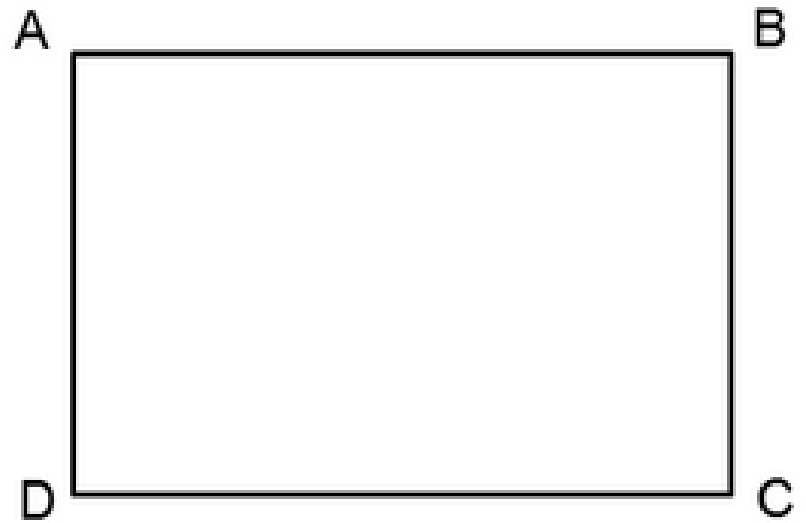
- More than 3 *cm* from A



Your turn

Construct the locus of points which are:

- More than 5 *cm* from B



Worked example

Construct the locus of points which are:

- Closer to B than C
- More than 3 *cm* from A



Your turn

Construct the locus of points which are:

- Closer to C than A
- Less than 5 *cm* from B



Worked example

A football pitch is a rectangle of length 105 metres and width 68 metres. Construct an accurate scale drawing of pitch using the scales:

1: 1000

1: 400

Your turn

A football pitch is a rectangle of length 105 metres and width 68 metres. Construct an accurate scale drawing of pitch using the scales:

1: 800

Worked example

A football pitch is a rectangle of length 105 metres and width 68 metres. Construct an accurate scale drawing of pitch using the scales:

$$1\text{ cm} = 10\text{ m}$$

$$1\text{ cm} = 4\text{ m}$$

Your turn

A football pitch is a rectangle of length 105 metres and width 68 metres. Construct an accurate scale drawing of pitch using the scales:

$$1\text{ cm} = 8\text{ m}$$