



EGD Grade 10

Geometric Constructions

Copy a given angle

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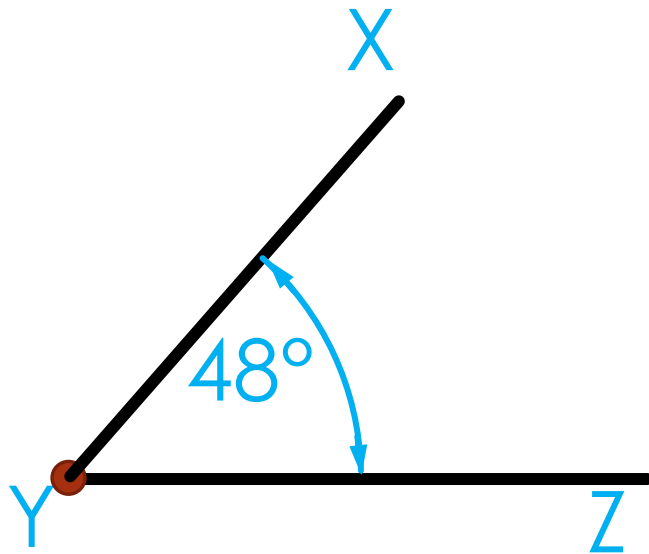
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Geometric Constructions

Question

- By means of construction, copy on line segment ABC an angle XBC to the same size as the given angle XYZ (48°)



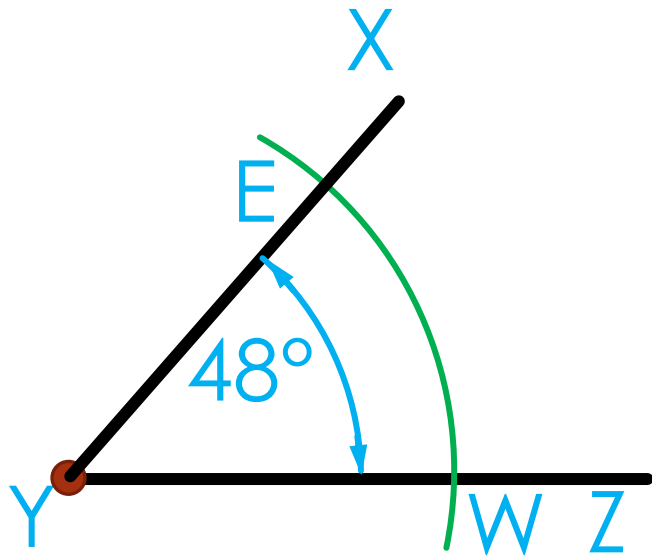
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Step 1

- **Question:** Copy angle XYZ (48°)
- Draw an arc of any size from point Y to intersect line segment YZ at point W and line segment XY at point E respectively



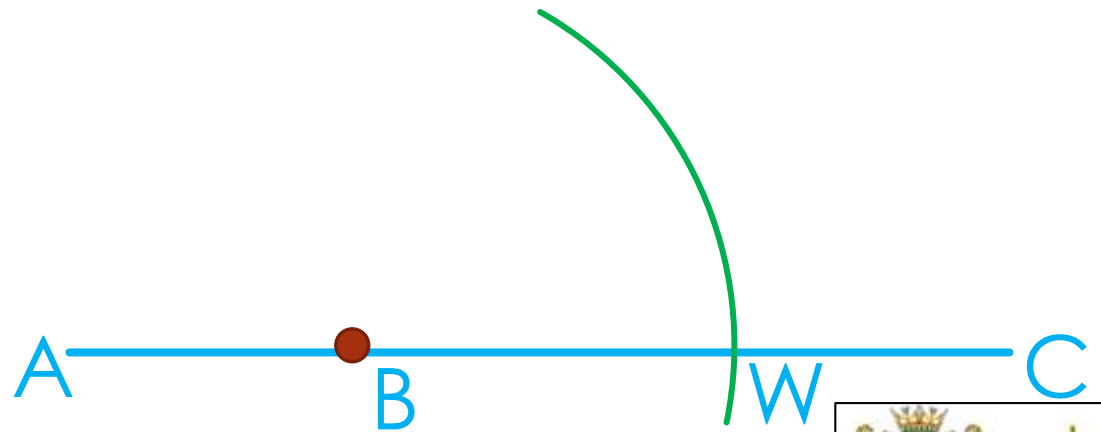
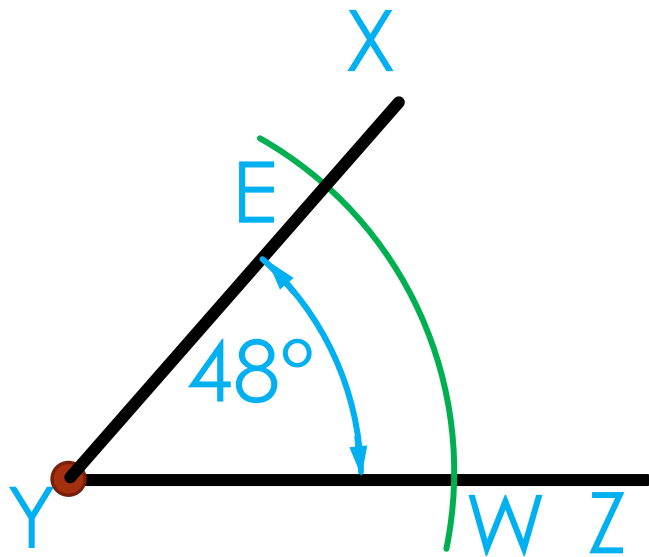
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Step 2

- **Question:** Copy angle XYZ (48°)
- From point B, draw the same size arc on line segment ABC and name the point of intersection on line segment ABC point W



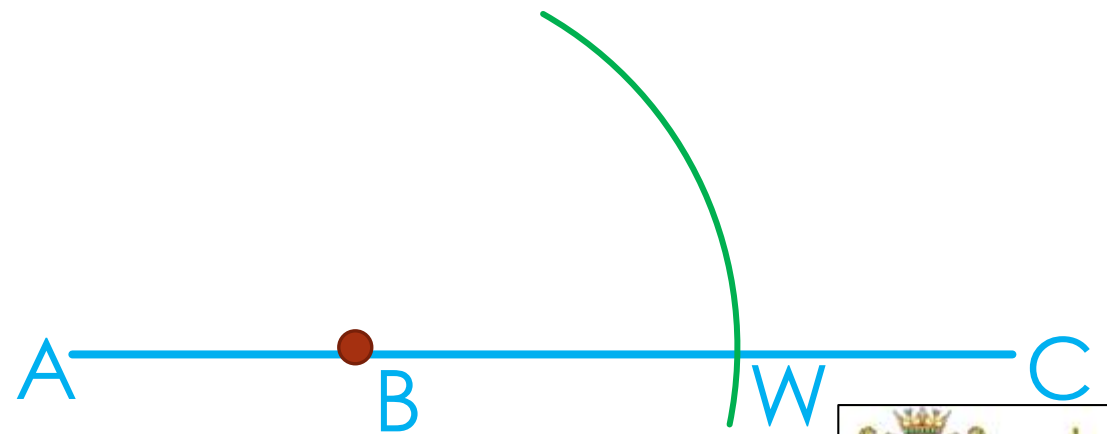
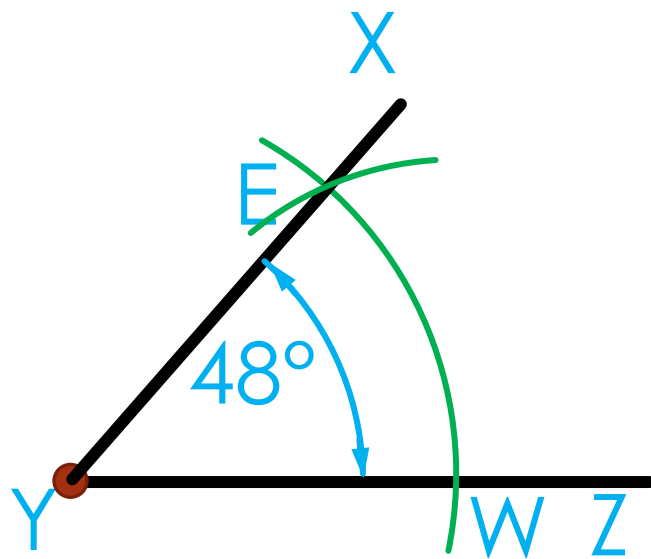
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Step 3

- **Question:** Copy angle XYZ (48°)
- On arc YW measure the distance from intersection point W to intersection point E by means of a compass



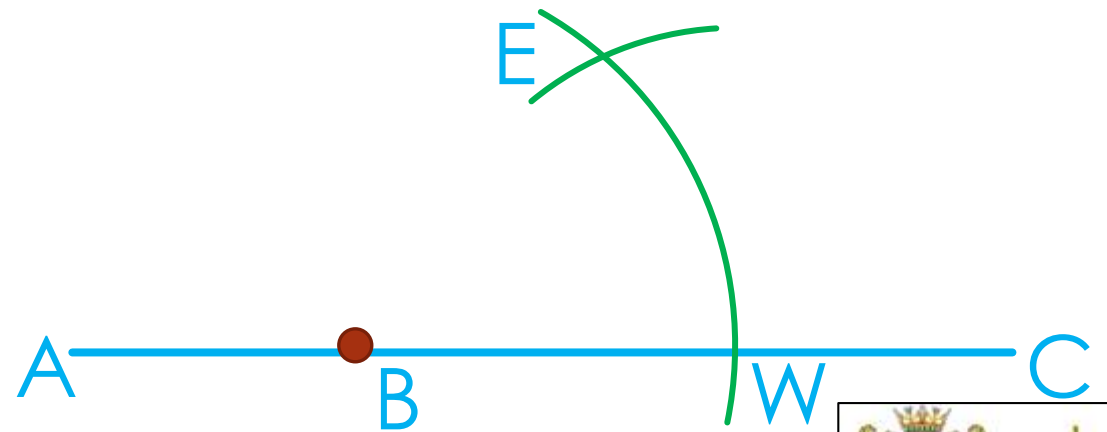
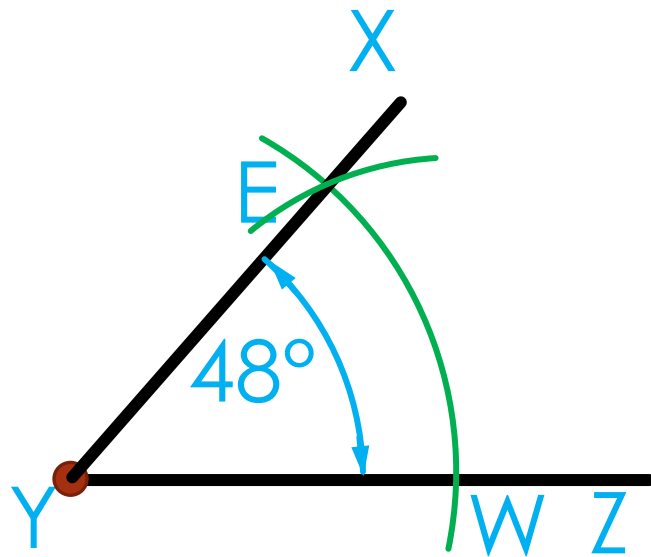
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Step 4

- **Question:** Copy angle XYZ (48°)
- On arc BW transfer the same length from intersection point W to find arc WE



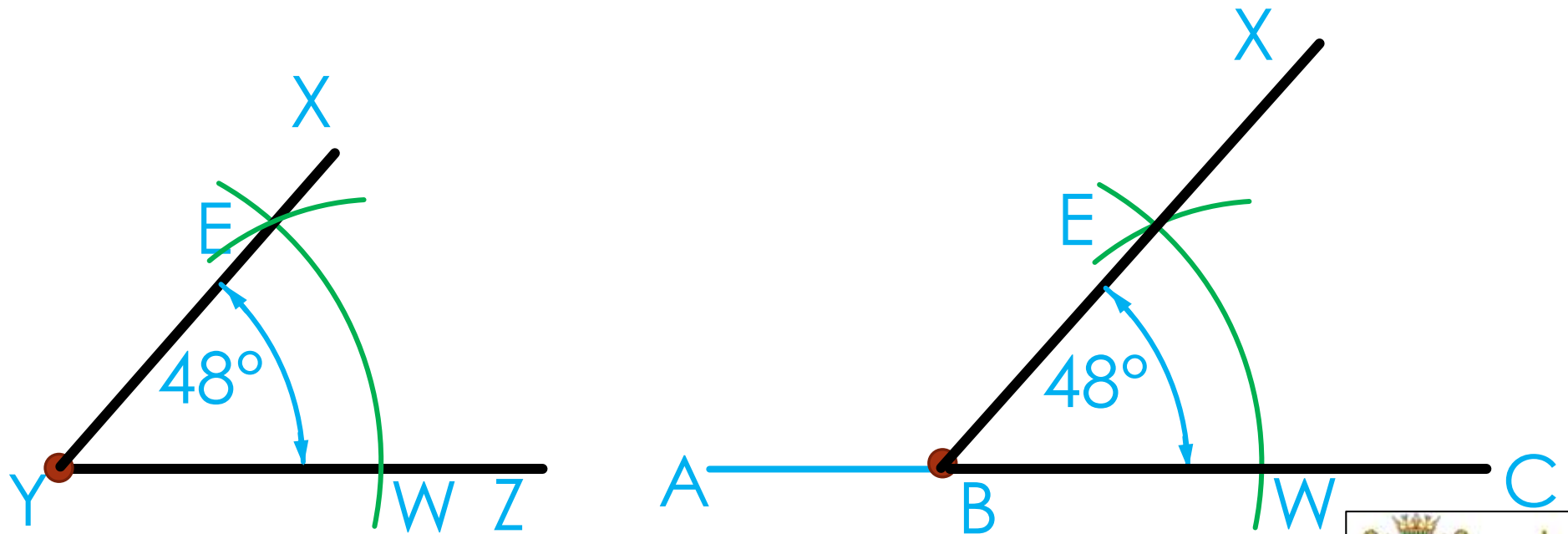
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Step 5

- **Question:** Copy angle XYZ (48°)
- Join BE and extend to X to complete the copying of angle XYZ to line segment ABC



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Task 1.5.2

- On the prepared A3 drawing sheet (Task 1.3.3), draw an acute angle (ABC) and an obtuse angle (DEF) of your choice.
- **Question: Copy above drawn angles to the same size next to your drawn angles, named ABC and DEF by means of construction.**
- Show all construction lines.
- Name this task 1.5.2

