Y

(3) Any position p.Y

3   C

(1) Create Beam element (temporary),
(2) p. X: Node properties - Polar relative
     (use DE, α+90° relatively to node p.A)

2

B   H

X

α+90°

1

α

DE

A

p.Y: Node properties - Polar relative
(use any lenght, α angle relatively to node - p. X)

Y

3   C

2

B   H

α

X

1

A

W ⭘━━━━━━━━━━━━━━⭘ Z
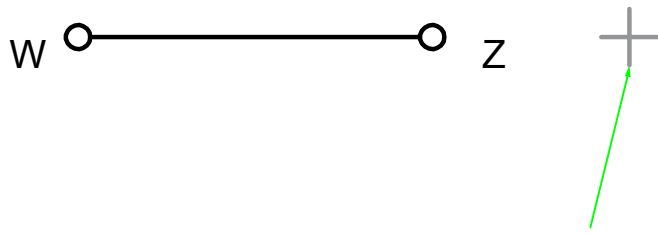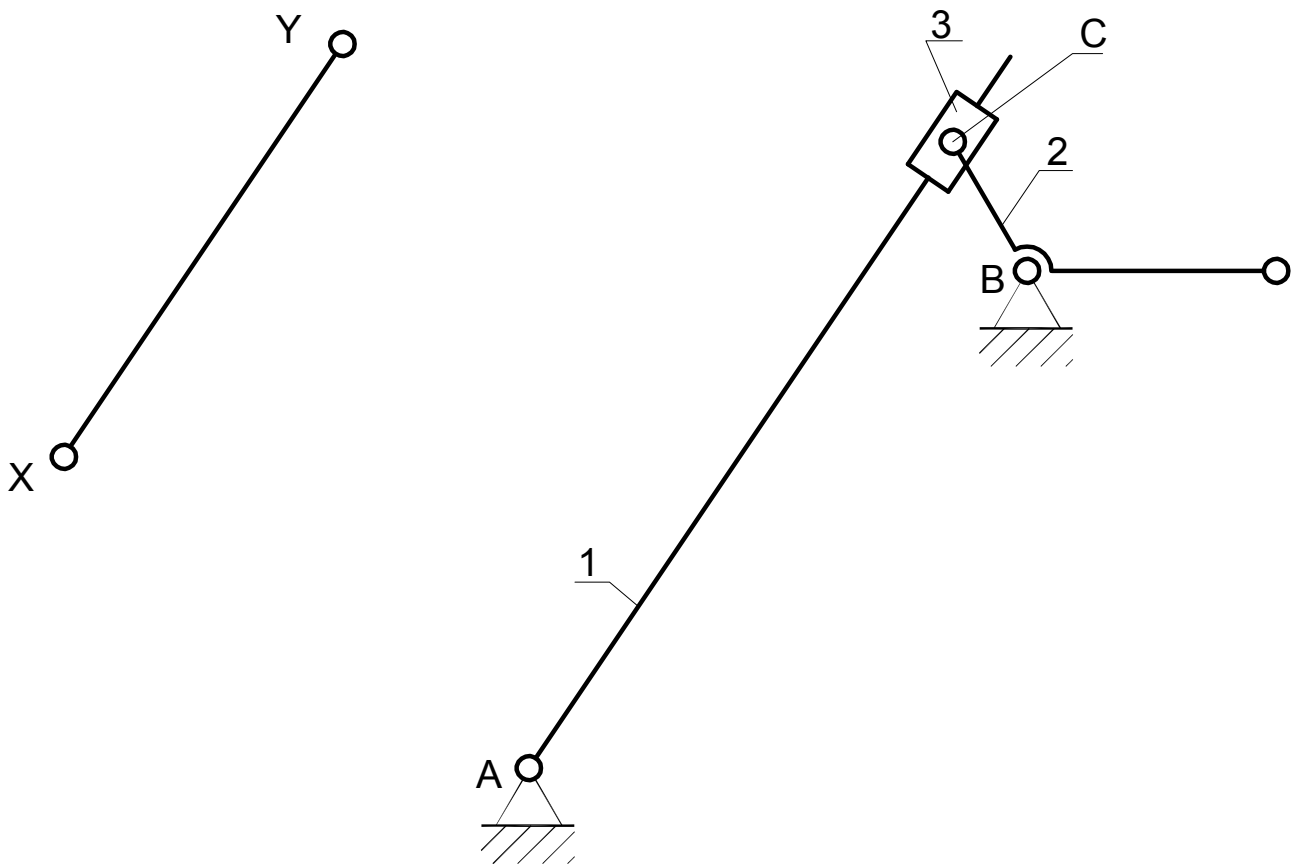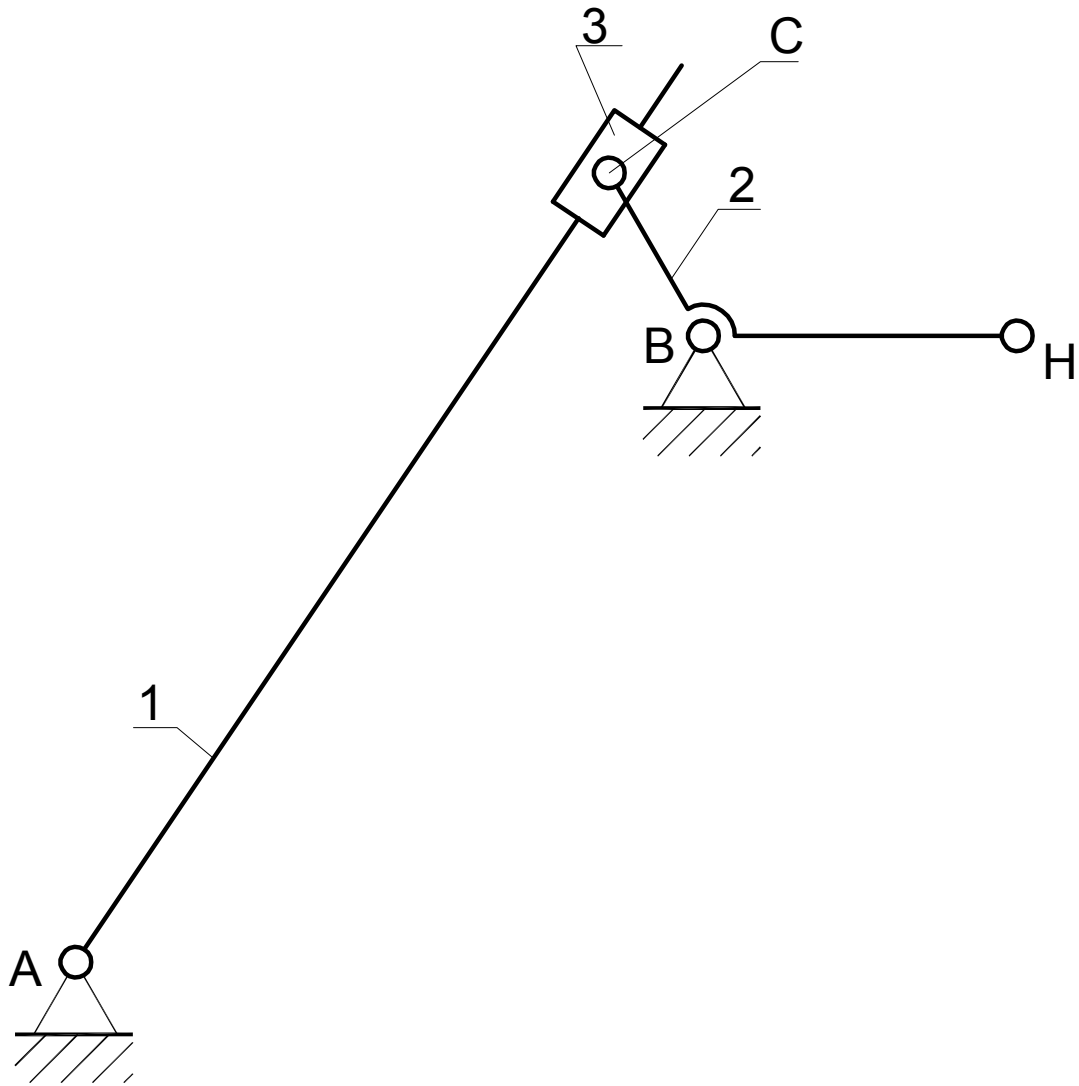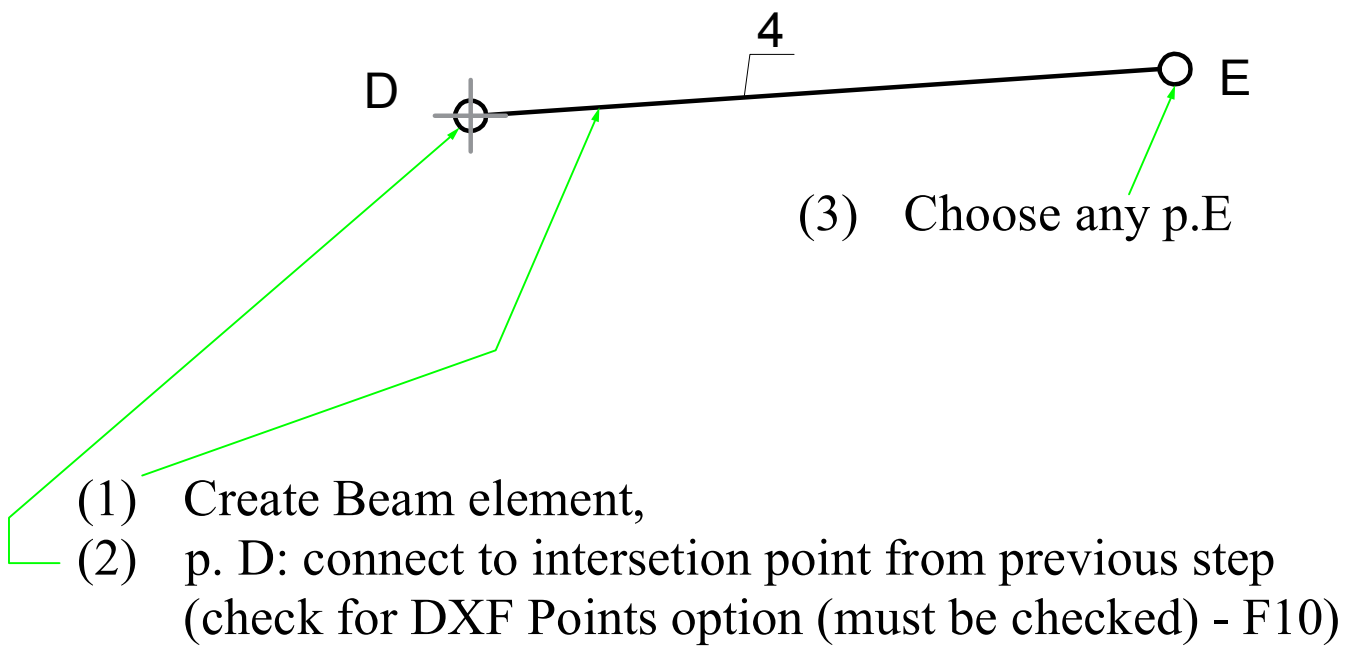
(1) Create Beam element (temporary),
(2) p. W: Node properties - Carthesian
    absolute (use any x coord. and y_D)
(3) p. Z: Node properties - Carthesian
    absolute (use any x coord. and i y_D)

Y ⭘

X ⭘

1

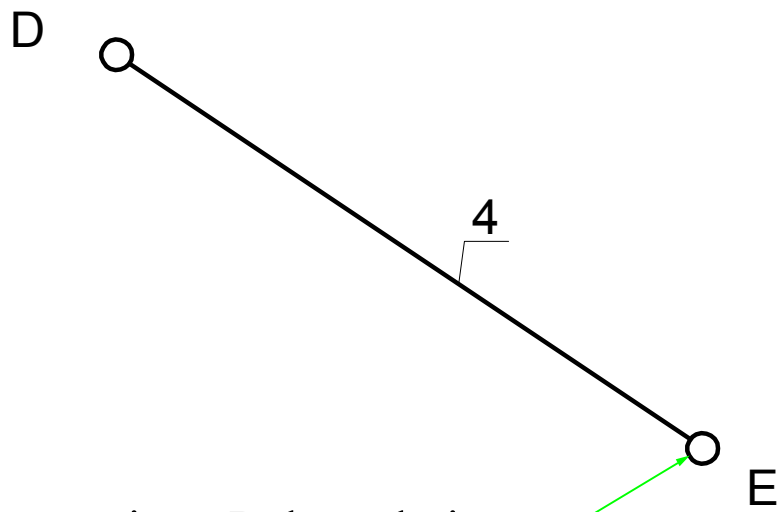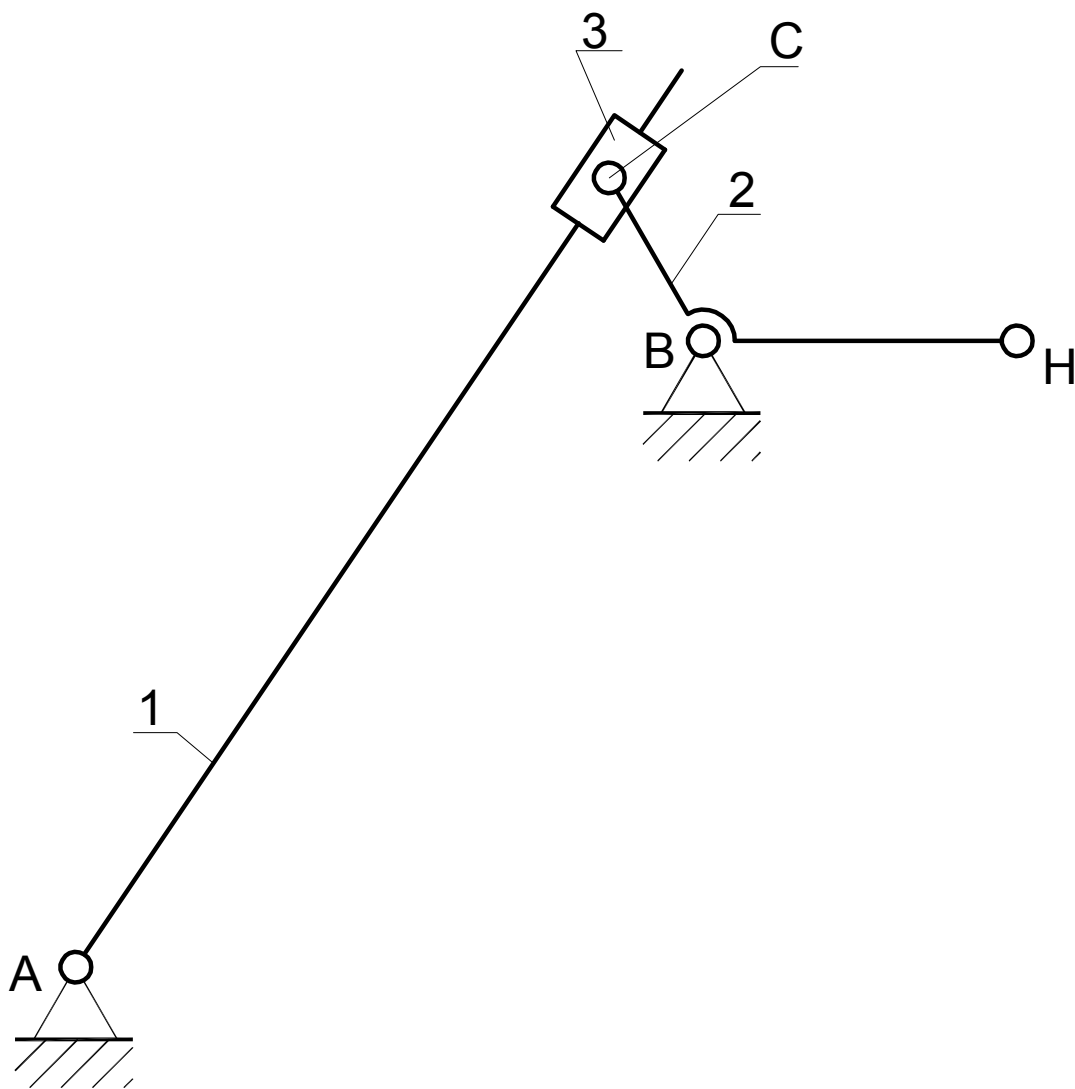A ⭘

3

C

2

B ⭘━━━━━⭘ H

W O━━━━━━━━━O Z
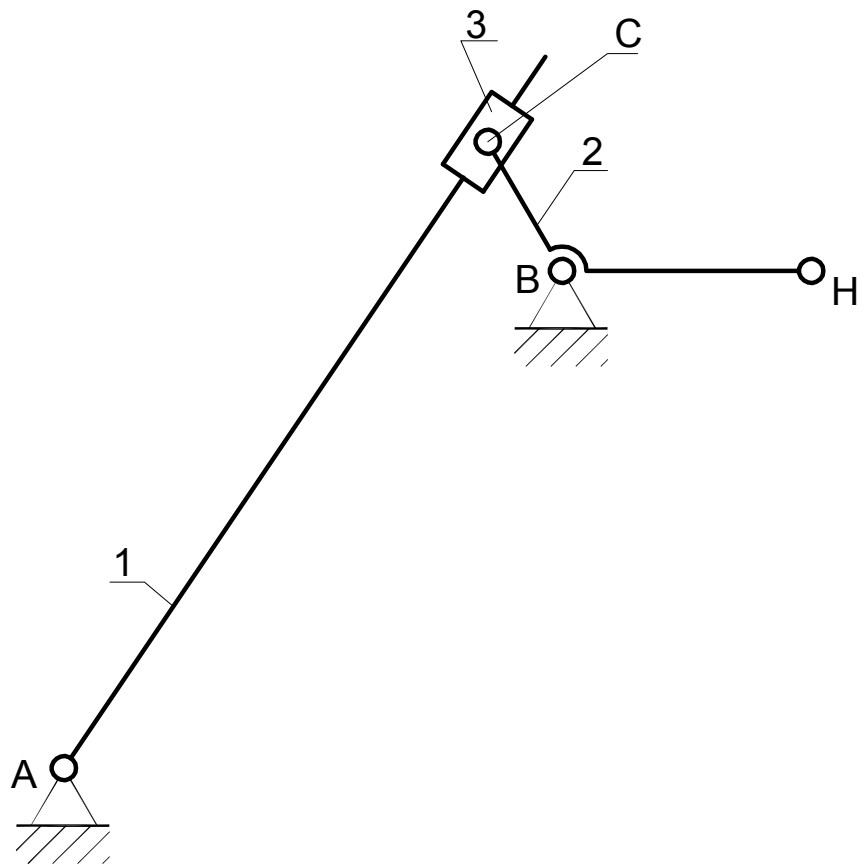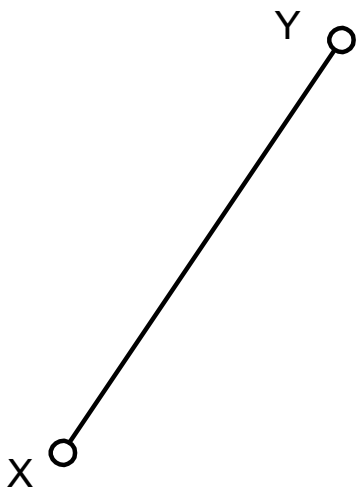
Create intersection point: Graphics -> Intersection
(select temporary Beam elements)
then delete temporary Beam elements

Y

X

3 C

2

B

1

A

4

D

E

(3)   Choose any p.E

(1)   Create Beam element,
(2)   p. D: connect to intersetion point from previous step
      (check for DXF Points option (must be checked) - F10)
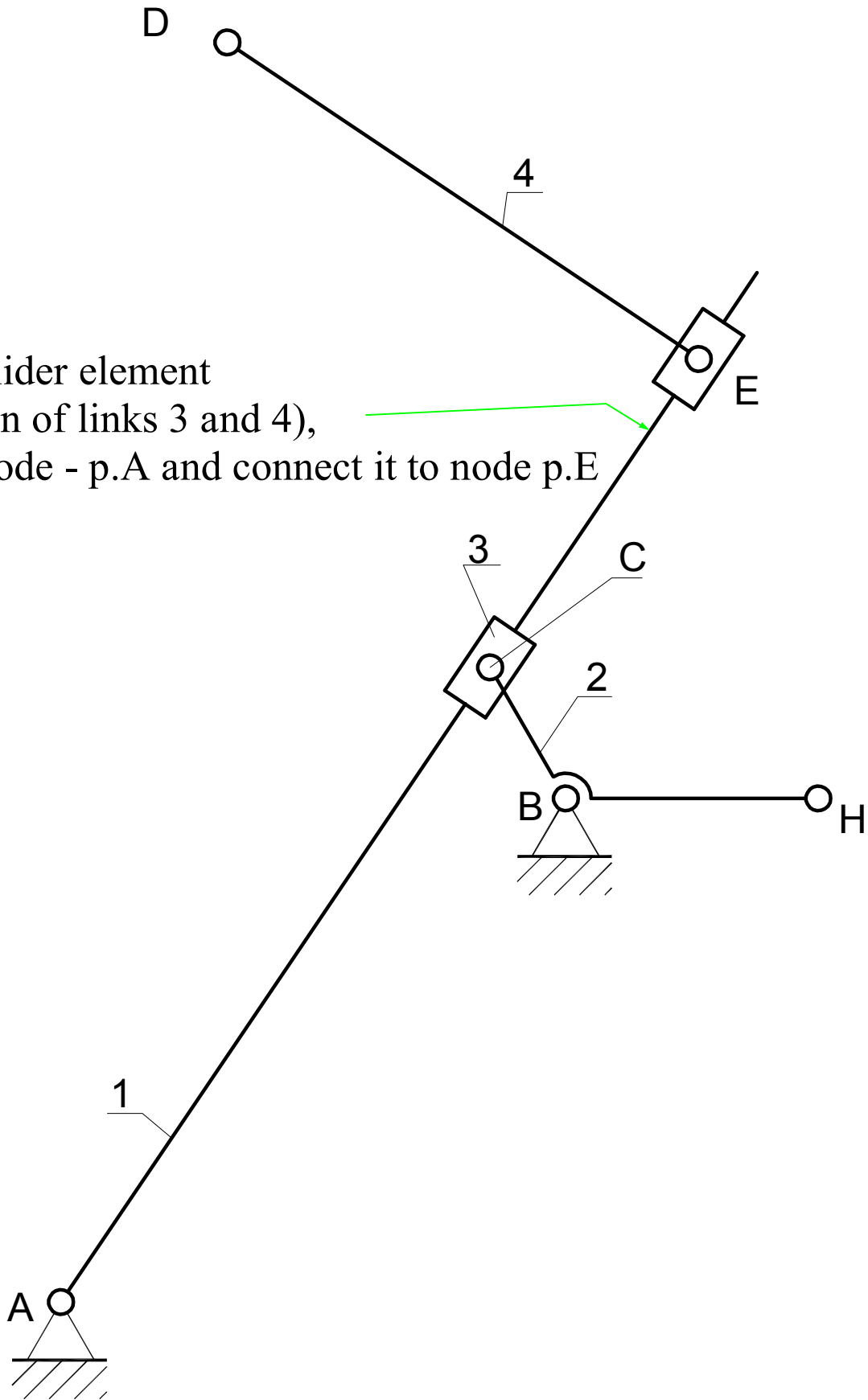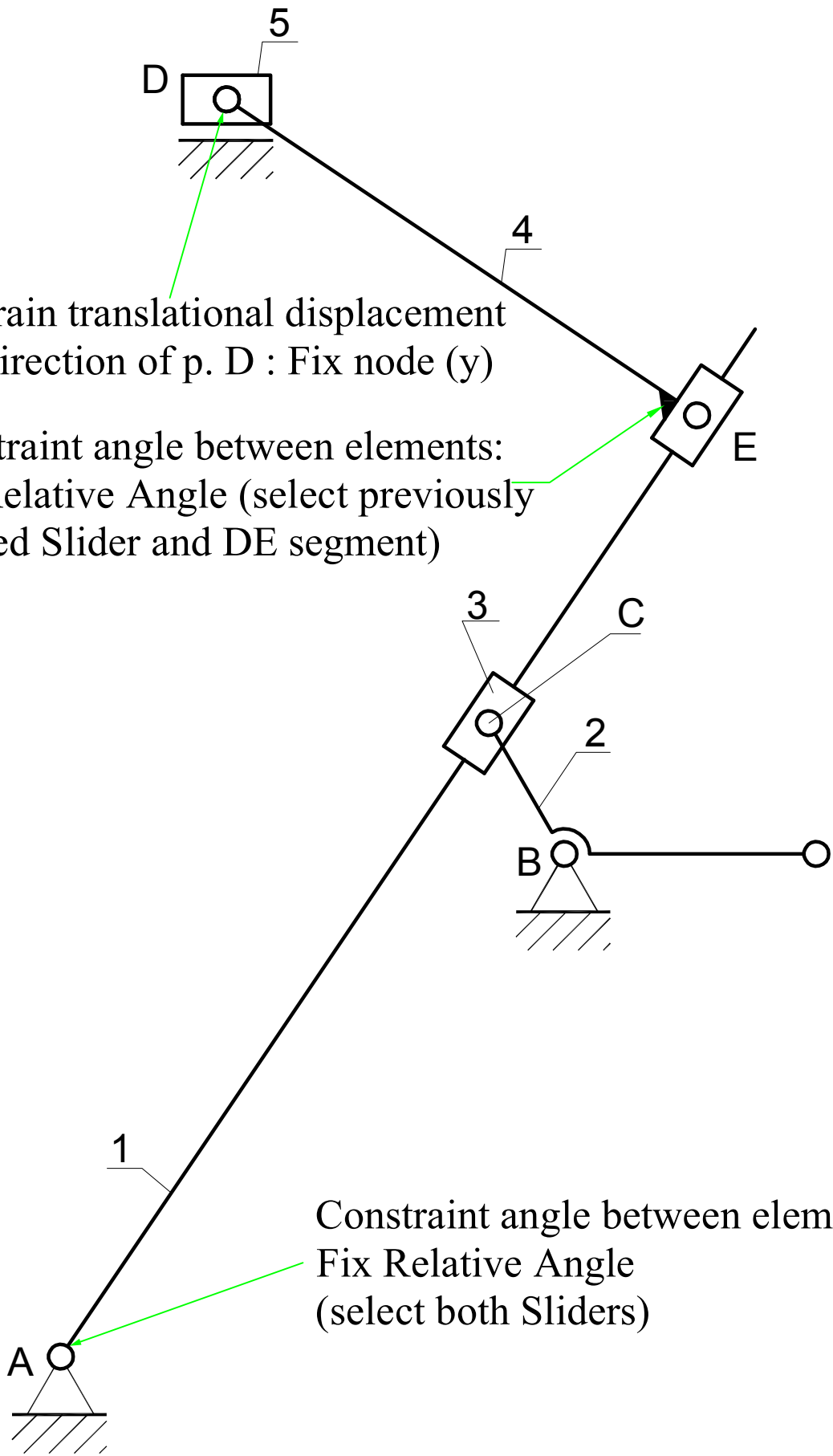
3

C

2

B

H

1

A

D

4

E

p.E: Node properties - Polar relative
(use h dimm., α+270° angle relatively to node p.D)

3   C

2

B   H

1

A

D

4

Create Slider element
(extension of links 3 and 4),
start in node - p.A and connect it to node p.E
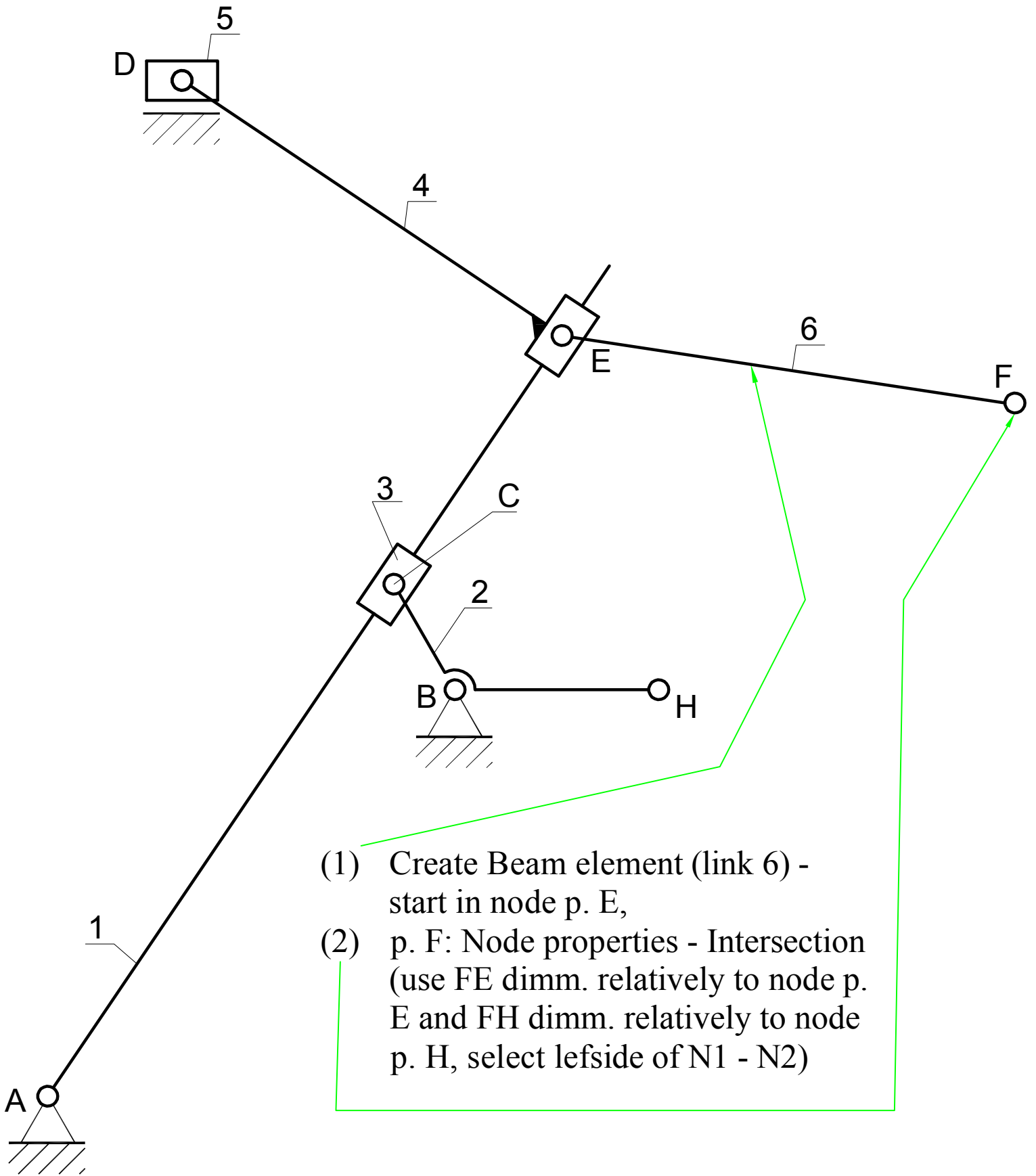
E

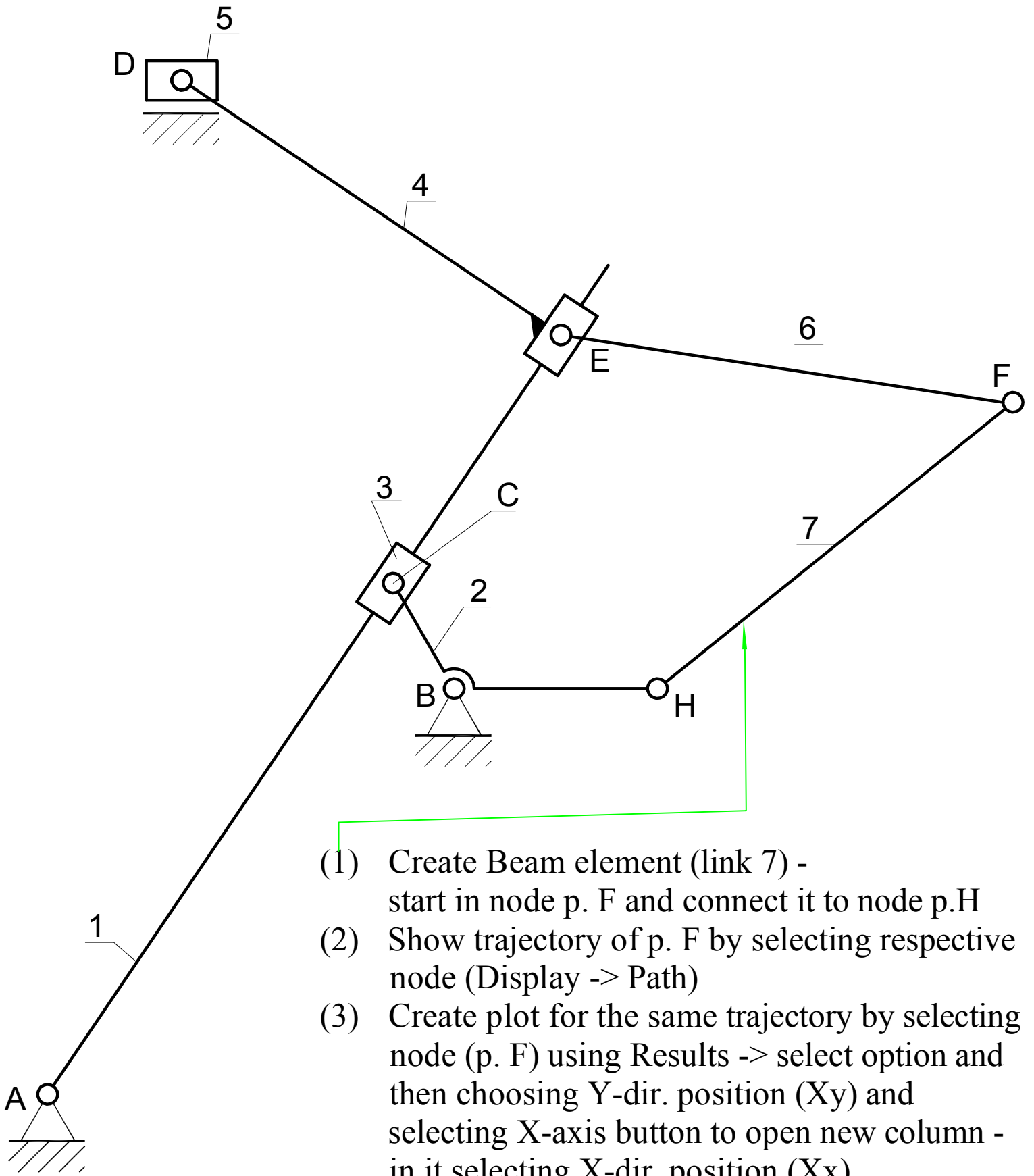3

C

2

B

H

1

A

5

D

4

Constrain translational displacement
in Y direction of p. D : Fix node (y)

Constraint angle between elements:
Fix Relative Angle (select previously
created Slider and DE segment)

E

3

C

2

B

1

Constraint angle between elements:
Fix Relative Angle
(select both Sliders)

A

(1) Create Beam element (link 6) - start in node p. E,

(2) p. F: Node properties - Intersection (use FE dimm. relatively to node p. E and FH dimm. relatively to node p. H, select lefside of N1 - N2)

(1) Create Beam element (link 7) -
start in node p. F and connect it to node p.H
(2) Show trajectory of p. F by selecting respective
node (Display -> Path)
(3) Create plot for the same trajectory by selecting
node (p. F) using Results -> select option and
then choosing Y-dir. position (Xy) and
selecting X-axis button to open new column -
in it selecting X-dir. position (Xx)