

Remarks: See §4.2, page 116 till 120

Answers problem 4.7-1 till 4:

- 1a. bar (a): 3; bar (b): 2; bar (c): 3
in total 8 interaction forces in A
- 1b. 3 equilibrium equations for joint A
- 1c. $8 - 3 = 5$ independent interaction forces
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- 2a. bar (a): 3; bar (b): 3; bar (c): 2
in total 8 interaction forces in B
- 2b. 3 equilibrium equations for joint B
- 2c. $8 - 3 = 5$ independent interaction forces
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- 3a. bar (a): 3; bar (b): 2; bar (c): 2; bar (d) 3
in total 10 interaction forces in C
- 3b. 3 equilibrium equations for joint C
- 3c. $10 - 3 = 7$ independent interaction forces
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- 4a. bar (a): 2; bar (b): 3; bar (c): 3; bar (d) 2
in total 10 interaction forces in D

- 4b. 3 equilibrium equations for joint D
- 4c. $10 - 3 = 7$ independent interaction forces

Hints problem 4.7-5:

You can see the joint in E as two stiff joints which are connected by a hinge

Answers problem 4.7-5:

- 5a. bar (a): 3; bar (b): 3; bar (c): 3; bar (d) 3
Between the two joint 2 interaction forces
in total 14 interaction forces in E
- 5b. each stiff joint has 3 equilibrium equations
in total 6 equations.
- 5c. $14 - 6 = 8$ independent interaction forces