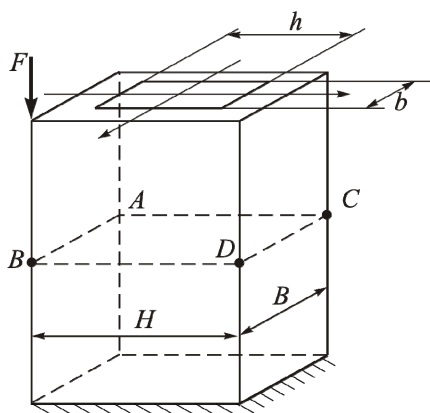


Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 1

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

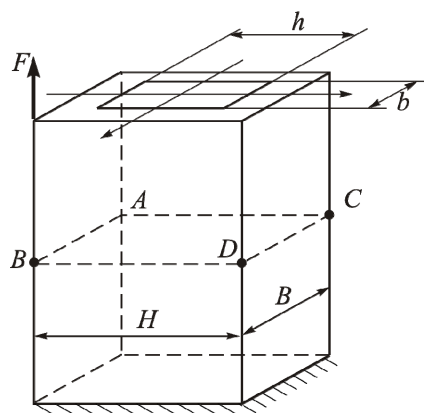
Mark:

Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 2

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

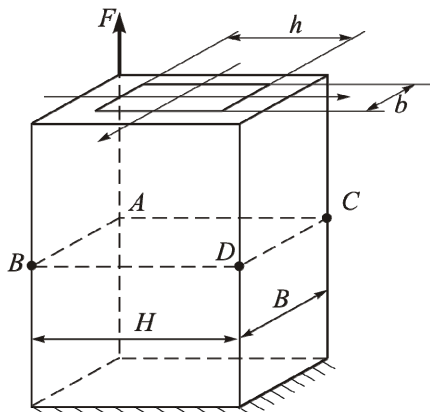
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Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 3

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

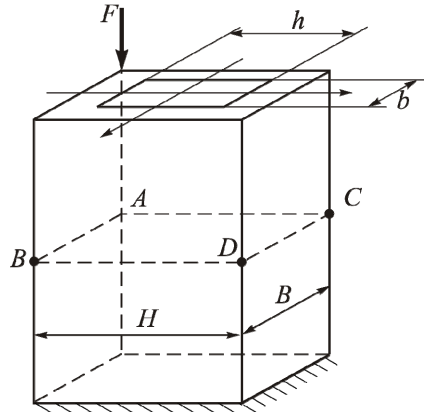
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Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 4

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

Mark:

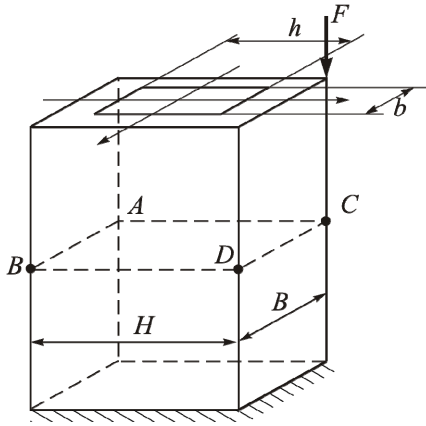
**National aerospace university
"Kharkiv Aviation Institute"
Department of aircraft strength**

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 5

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

Mark:

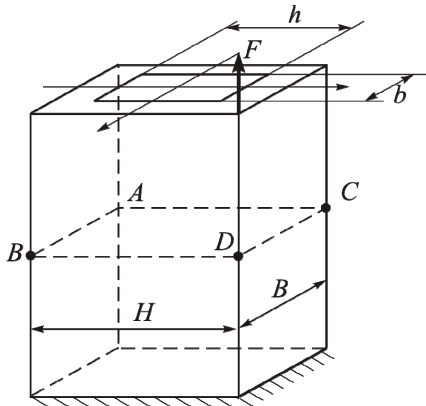
**National aerospace university
"Kharkiv Aviation Institute"
Department of aircraft strength**

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 7

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

Mark:

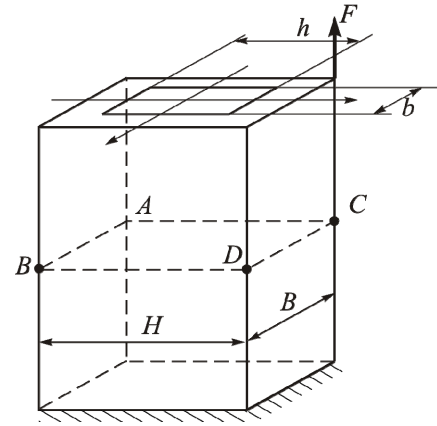
**National aerospace university
"Kharkiv Aviation Institute"
Department of aircraft strength**

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 6

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

Mark:

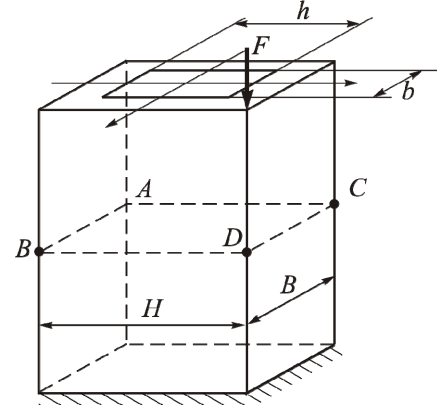
**National aerospace university
"Kharkiv Aviation Institute"
Department of aircraft strength**

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 8

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

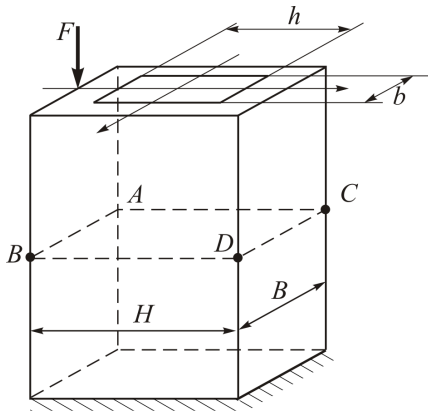
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Mark:

Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 9 Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

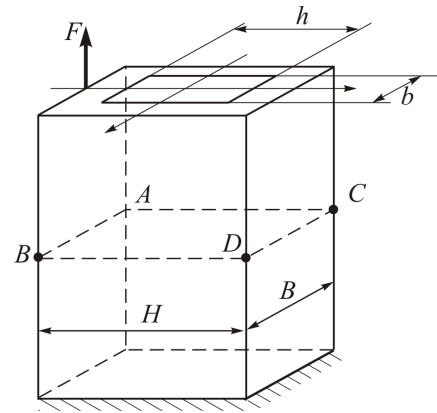
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Mark:

Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 10 Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

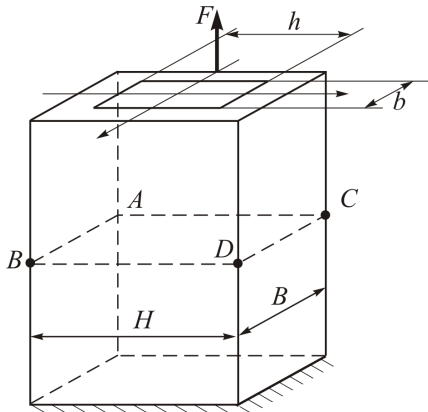
Full name of the lecturer

signature

Mark:

Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression
 Full name of the student, group

Variant: 11 Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

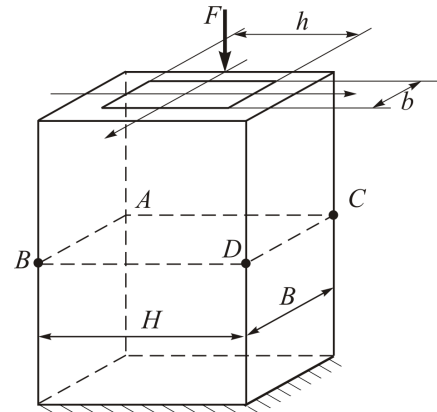
Full name of the lecturer

signature

Mark:

Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression
 Full name of the student, group

Variant: 12 Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

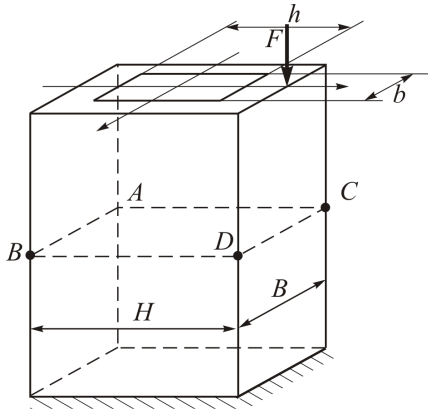
Mark:

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 13

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

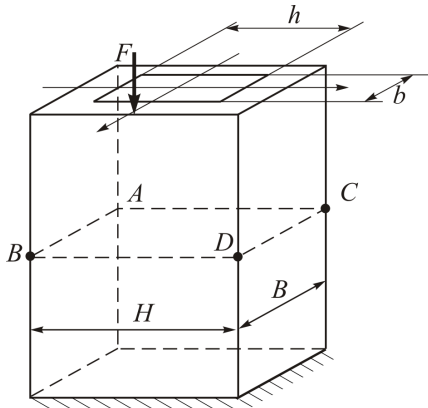
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 15

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

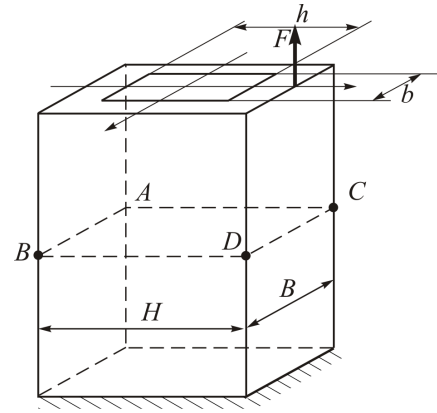
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 14

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

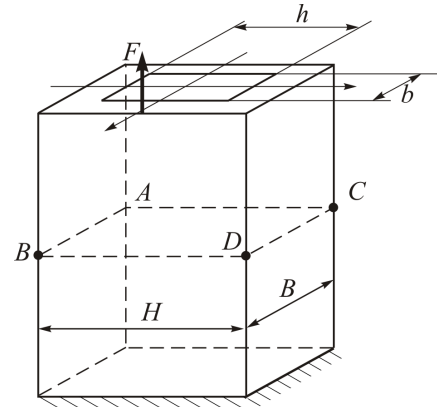
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 16

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 10$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

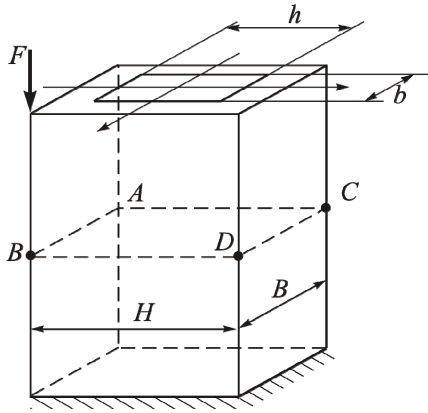
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Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 17

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

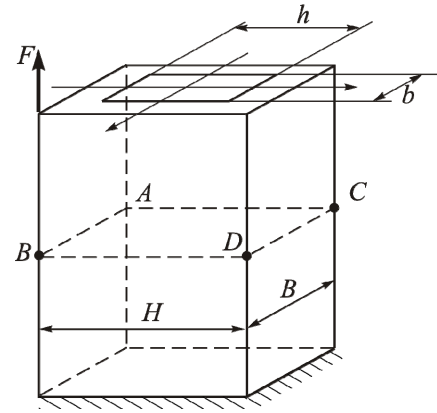
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Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 18

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

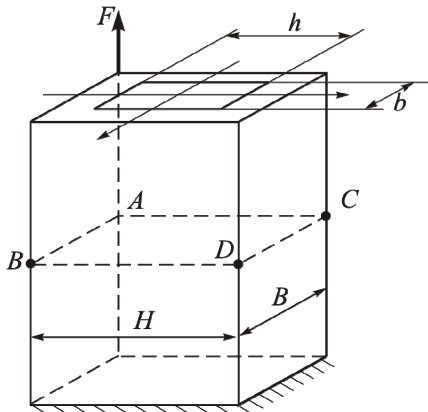
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Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 19

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

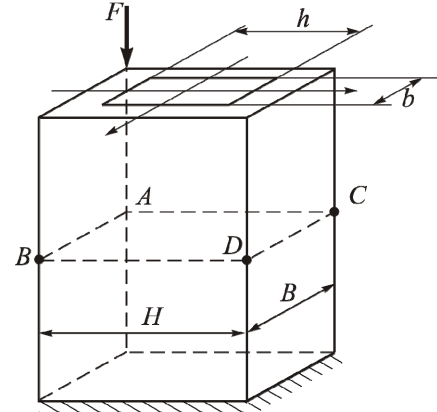
Mark:

Subject: mechanics of materials
 Document: home problem
 Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 20

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

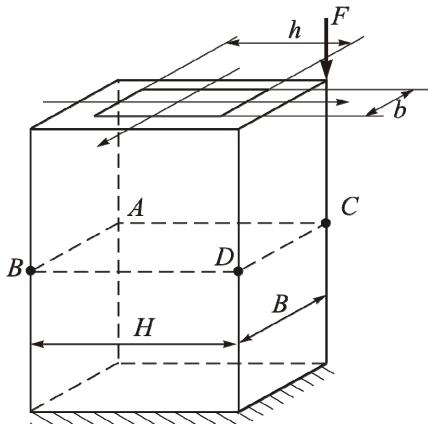
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 21

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

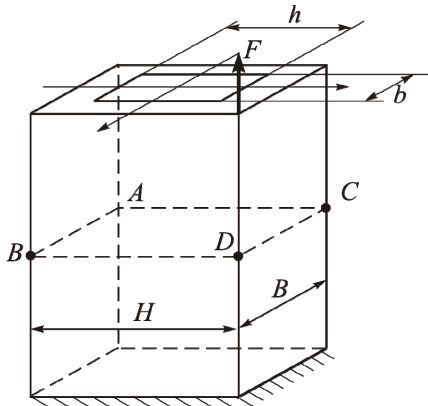
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 23

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

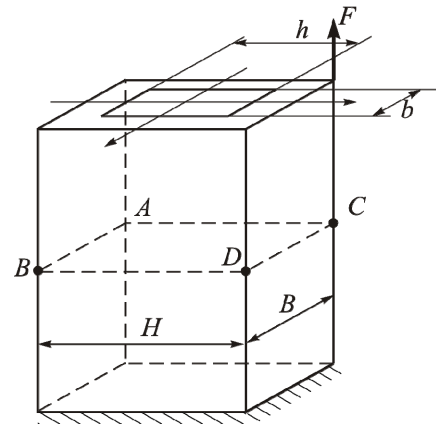
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 22

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

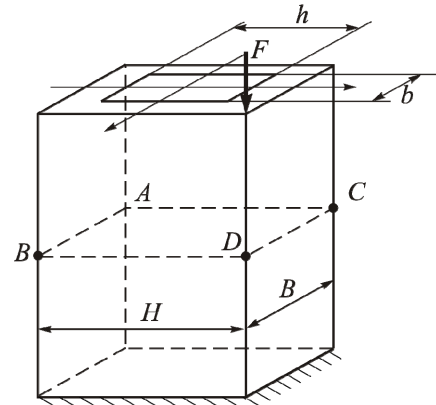
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 24

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

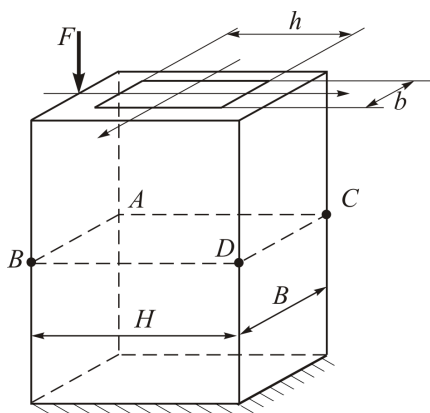
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 25

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

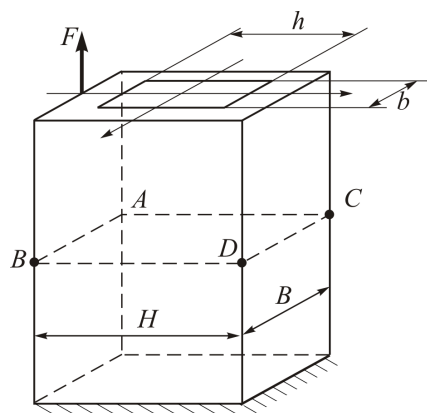
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 26

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

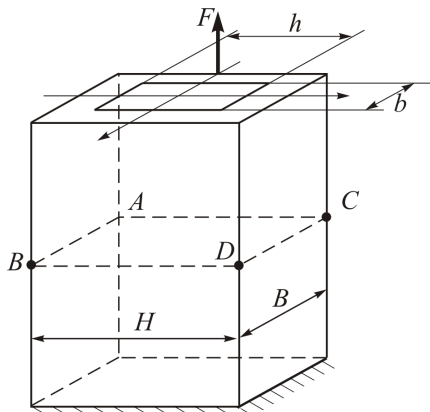
Mark:

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 27

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

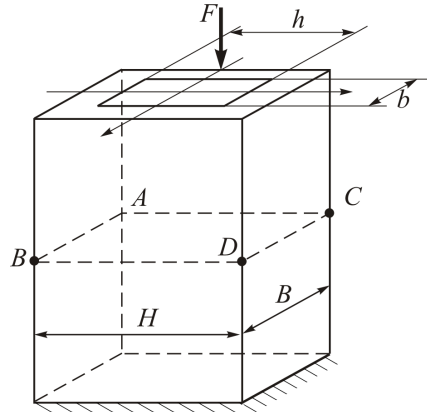
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 28

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

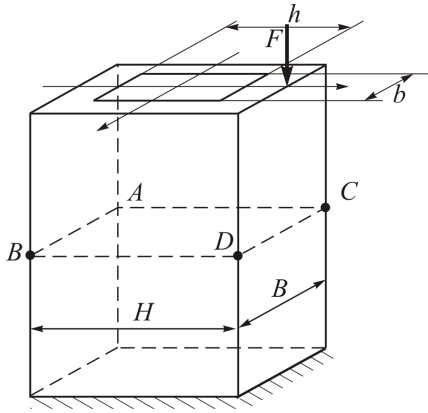
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Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 29

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

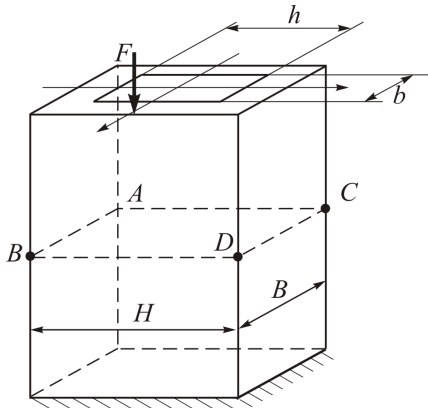
Mark:

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 31

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

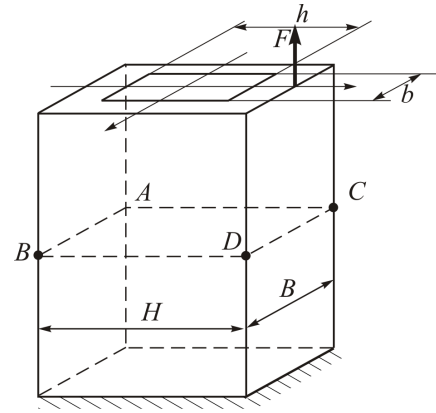
Mark:

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 30

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

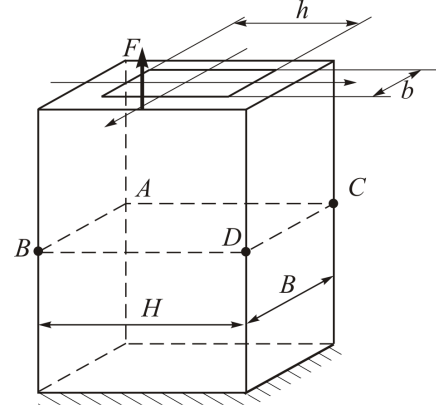
Mark:

Subject: mechanics of materials
Document: home problem
Topic: stress analysis in eccentric tension – compression

Full name of the student, group

Variant: 32

Complexity: 1



Given: $H = 20$ cm, $h = 10$ cm, $B = 10$ cm, $b = 5$ cm, $F = 20$ kN, $[\sigma] = 160$ MPa .

Goal: 1) calculate stresses in an arbitrary cross – section $ABCD$ and check the strength; 2) Draw the graph of stress distribution in cross – section $ABCD$; 3) determine analytically position of neutral axis.

Full name of the lecturer

signature

Mark: