

Certified SolidWorks Associate (CSWA)

Sample Exam Questions

The questions below represent sample CSWA Exam questions. Part modeling and assembly modeling questions that require you to build model should be correctly answered in 45 minutes or less. Question 2 and Question 3 should be correctly answered in 5 minutes or less.

Question 1.

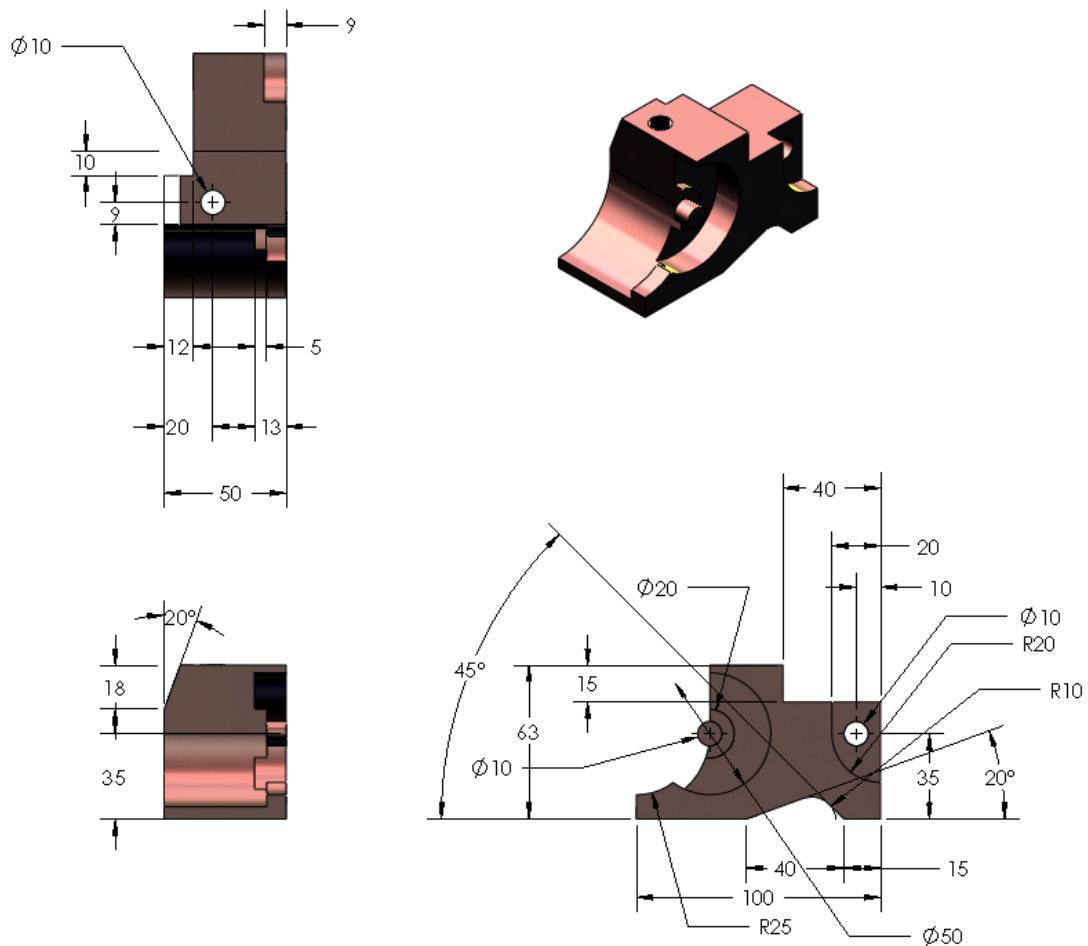
Build this part in SolidWorks.

Unit system: MMGS (millimeter, gram, second)

Decimal places: 2. Part origin: Arbitrary

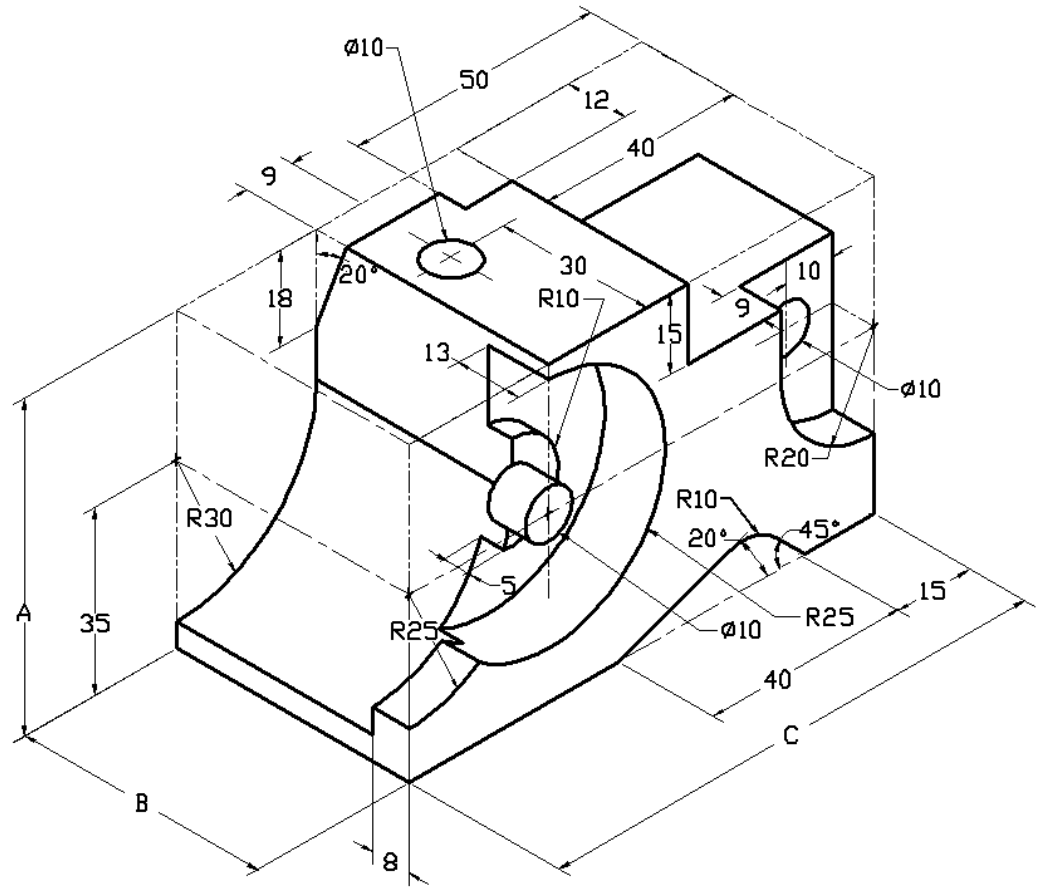
A = 63mm, B = 50mm, C = 100mm. All holes through all.

Part material: Copper Density = 0.0089 g/mm³



What is the overall mass of the part in grams?

- a) 1205
- b) 1280
- c) 144
- d) 1108



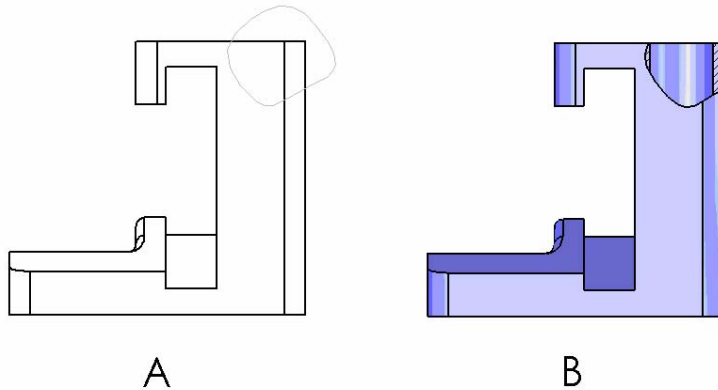
Question 2.

COSMOSXPress allows changes to mesh settings. Which of the following statements is not True?

- a) A fine mesh setting produces more accurate results than a course mesh.
- b) A coarse mesh setting produces less accurate results than a fine mesh.
- c) A fine mesh setting can be applied to a specific face instead of the entire model.
- d) All of the above

Question 3.

To create drawing view, 'B' it is necessary to sketch a spline (as shown) on drawing view 'A' and insert which SolidWorks view type?

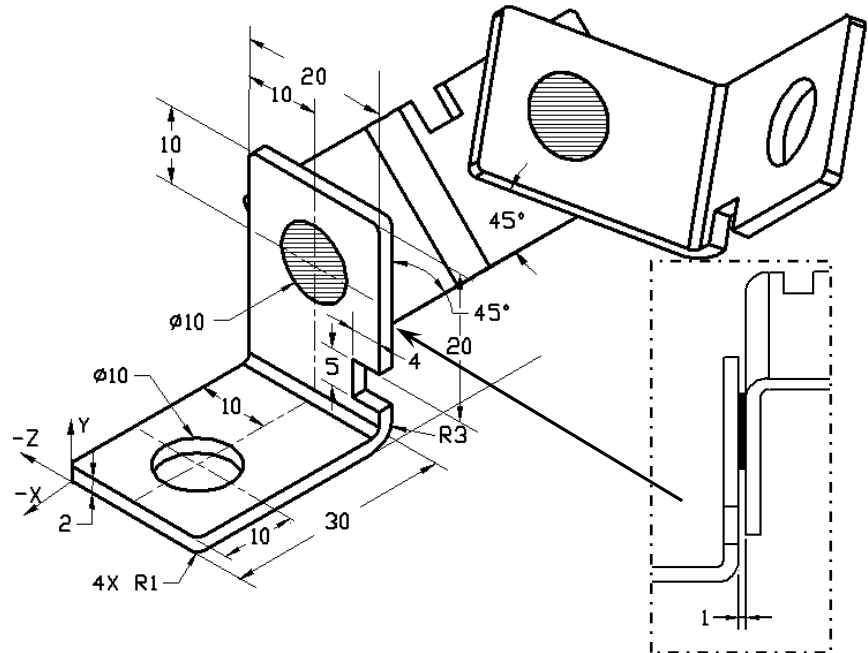


- a) Brokenout Section
- b) Aligned Section
- c) Section
- d) Detail

Question 4.

Build this assembly in SolidWorks.

It contains 3 machined brackets and 2 pins.



Brackets: 2mm

thickness, and equal size (holes through-all). Material: 6061 Alloy, Density = 0.0027g/mm³. The top edge of the notch is located 20 mm from the top edge of the MachinedBracket.

Pins: 5 mm length and equal in diameter, Material: Titanium, Density = 0.0046g/mm³. Pins are mated concentric to bracket holes (no clearance). Pin end faces are coincident to bracket outer faces. There is a 1 mm gap between the brackets. Brackets are positioned with equal angle mates (45 degrees).

Unit system: MMGS (millimeter, gram, second)

Decimal places: 2

Assembly origin: As shown.

What is the center of mass of the assembly?

- a) X=-11.05 Y=24.08 Z=-40.19
- b) X=-11.05 Y=-24.08 Z=40.19
- c) X= 40.24 Y=24.33 Z=20.75
- d) X= 20.75 Y=24.33 Z=40.24

Question 5.

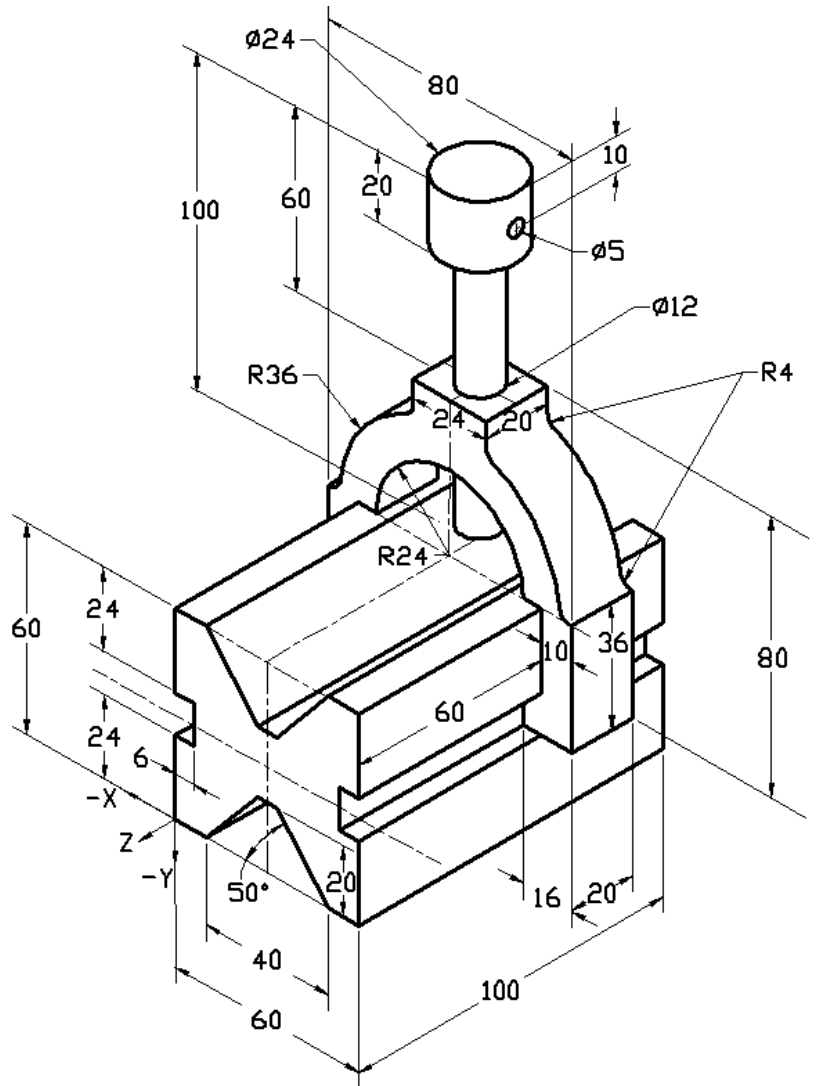
Build this assembly in SolidWorks. It contains 3 components: Base, Yoke, Adjusting Pin. Apply the MMGS unit system.

Material: 1060 Alloy for all components. Density = 0.0027g/mm³

Base: The distance between the front face of the Base and the front face of the Yoke = 60mm.

Yoke: The Yoke fits inside the left and right square channels of the Base component, (no clearance). The top face of the Yoke contains a Ø12mm through-all hole.

AdjustingPin: The bottom face of the AdjustingPin head is located 40 mm from the top face of the Yoke component. The AdjustingPin component contains a Ø5mm through all hole.



What is the center of mass of the assembly with respect to the illustrated coordinate system?

- a) X=-30.00 Y=-40.16 Z=-40.16
- b) X=30.00 Y=40.16 Z=-43.82
- c) X= -30.00 Y=-40.16 Z=50.20
- d) X= 30.00 Y=40.16 Z=-53.82

Question 6.

Build this part in SolidWorks.

Material: 6061 Alloy. Density = 0.0027g/mm³

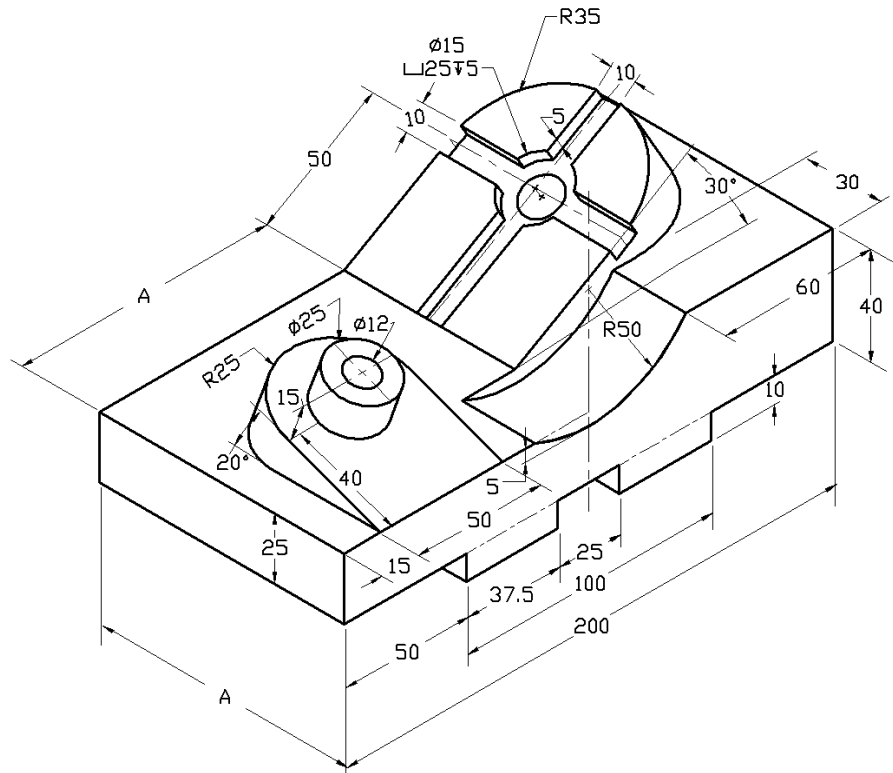
Unit system: MMGS (millimeter, gram, second)

Decimal places: 2.

Part origin: Arbitrary

A = 100.

All holes through all, unless otherwise specified



What is the overall mass of the part in grams?

- a) 2040.57
- b) 2004.57
- c) 102.63
- d) 1561.23

For further preparation, please complete the SolidWorks tutorials, located in SolidWorks under the Help Menu, before taking the CSWA Exam. Review the "About the CSWA Exam" document located at www.solidworks.com/cswa.

Good Luck,

Certification Program Manager, SolidWorks Corporation

Correct answers:

1. b
2. c
3. a
4. c
5. d
6. a