

# SolidWorks Certification

**Certified SolidWorks Associate (CSWA)**  
**Certified SolidWorks Professional (CSWP)**

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Mechanical and Mechatronics Engineering

**WATERLOO | ENGINEERING**



# What is it?

The University of Waterloo currently offers two exams from the SolidWorks Certification program.

- SolidWorks Certified Associate (CSWA)
- SolidWorks Certified Professional (CSWP)

These are designations that demonstrate a user's proficiency of mechanical design using SolidWorks.

# Overview

This presentation will outline the necessary steps to take if you are interested in pursuing SolidWorks Certification.

If you are interested in taking either the CSWA or CSWP exam, please contact Brian Shillingford

[brian.shillingford@uwaterloo.ca](mailto:brian.shillingford@uwaterloo.ca)

# Computer Requirements

Before taking the CSWA or CSWP exam make sure you have the following:

- A computer with SolidWorks installed (current release or one release behind)
- A computer with Microsoft Excel\* installed
- A stable internet connection
- Tangix TesterPRO client (explained on the next slide)
- A valid @uwaterloo.ca email address
- A voucher code for the exam you are taking (CSWA or CSWP)

\* Microsoft Excel is required as there may be a portion of the exam that utilizes design tables

# Tangix TesterPRO

In order to take the exam, it is required that you download and install the Tangix TesterPRO Client. Tangix TesterPRO is the program you will use to access the exam. To download it, visit the address below:

<https://3dexperience.virtualtester.com>

The screenshot shows the 3DEXPERIENCE Certification Center website. The header includes the Dassault Systèmes logo and the text '3DEXPERIENCE® Certification Center'. A navigation menu on the left contains icons for home, search, user profile, and help. The main content area is divided into several sections:

- Reset lost Password?**: A link to a page where users can reset their passwords.
- Welcome to the 3DEXPERIENCE® Certification Center**: A welcome message explaining the purpose of the center and providing links to various certification offerings (SOLIDWORKS, CATIA, SIMULIA, DELMIA).
- News**: A section with a date 'May 6, 2020' and text about digital badges for SOLIDWORKS and 3DEXPERIENCE exams.
- Digital Badges Now Available for Some SOLIDWORKS and 3DEXPERIENCE Exams**: A section explaining the benefits of digital badges and providing a link to learn more.
- How to take a Certification Exam?**: A section explaining that exams are available 24x7 by downloading the Tangix TesterPRO Client software.

On the right side of the page, there is a 'Download TesterPRO Client' button circled in red, with a 'ZIP-version' link below it. Below this, there is a list of 'Top 5 Certifications Issued in Month' and 'Latest Certificates issued'.

# Exam Preparation

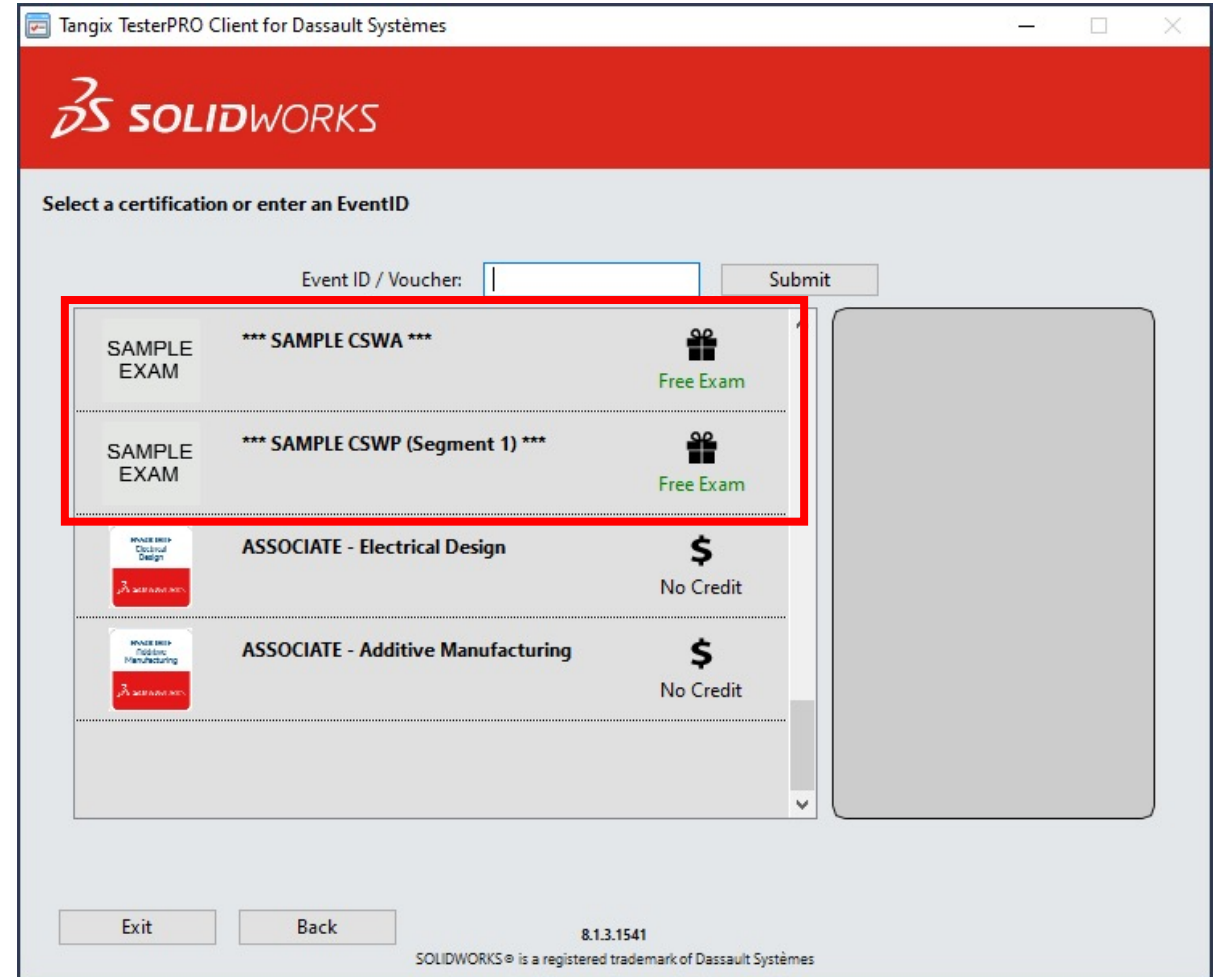
In addition to CSWA and CSWP exams, University of Waterloo students also have access to Sample exams and MySolidWorks for Students.

It is required that you complete and pass the sample exam prior to taking the CSWA or CSWP exam; not only for additional practise, but to ensure your system is functioning properly.

MySolidWorks for Students offers a variety of resources including a CSWA Exam Prep Course and a CSWP Exam Prep Course.

The link below is a video that shows the process to set up your MySolidWorks for Students account.

<https://www.solidworks.com/media/mysolidworks-students>



# Accessing the Exam

Tangix TesterPRO Client for Dassault Systèmes

**DASSAULT SYSTEMES**

Please select the language to use in Tangix TesterPRO Client

- Use English as application language
- Utiliser le Français comme langue du logiciel
- Verwenden Sie Deutsch als Anwendungssprache
- Utilizar el español como el idioma de la aplicación
- Use o português como o idioma do aplicativo
- Użyj Polskiego jako język aplikacji
- Usare l'Italiano come lingua di applicazione
- アプリケーション言語として日本語を使用
- 請使用繁體中文作為應用程式語言
- 使用汉语作为应用程序语言
- 한국어 사용
- ไทยภาษาไทยเป็นภาษาที่ใช้
- השתמש עברי כיישום שפה

Exit 8.1.3.1541 Continue

Open Tangix TesterPRO and select your preferred language

Tangix TesterPRO Client for Dassault Systèmes

**DASSAULT SYSTEMES**

Please complete the required fields below.

I already have a VirtualTester UserID and password

I do not have a VirtualTester UserID. Create one with the following information:

- \* First Name:  \* Required field
- \* Last Name:
- \* Company / School:
- \* E-mail:
- \* Password:  confirm
- \* Address 1:
- Address 2:
- \* City:
- State / Province:
- \* Postal Code:
- \* Country:    All

[Privacy Policy](#) \*  I accept the Privacy Policy  
 List in Online Directory of Certified Users

Exit 8.1.3.1541 Continue

You will be prompted to create a VirtualTester UserID. If you already have an account continue to the next step. Otherwise, fill out the form to continue

# Accessing the Exam (cont'd)

Tangix TesterPRO Client for Dassault Systèmes

**DS** DASSAULT SYSTEMES

Connect to VirtualTester

I already have a VirtualTester UserID and password

E-mail:

Password:

I do not have a VirtualTester UserID. Create one with the following information:

Exit 8.1.3.1541 Continue

If you already have an account enter your VirtualTester UserID credentials

Tangix TesterPRO Client for Dassault Systèmes

**DS** DASSAULT SYSTEMES

Select a Brand to show Certification Exams

**DS** SOLIDWORKS **DS** 3DEXPERIENCE **DS** CATIA

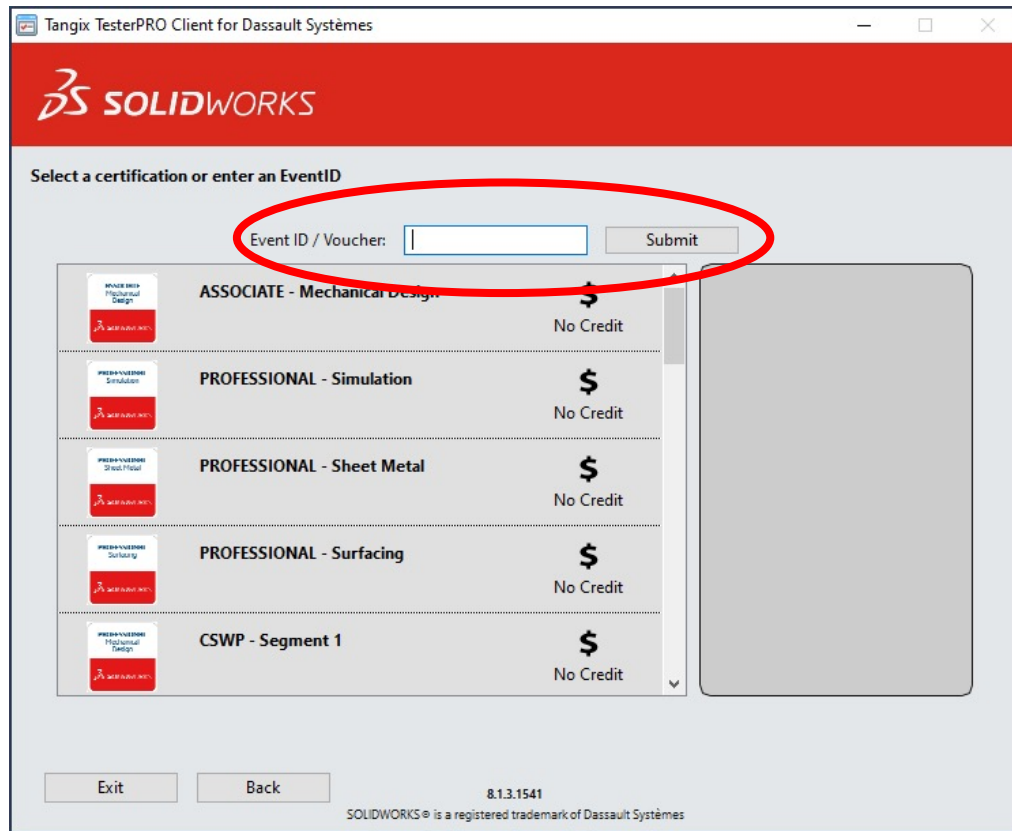
**DS** DELMIA **DS** GEOVIA **DS** SIMULIA

Exit 8.1.3.1541

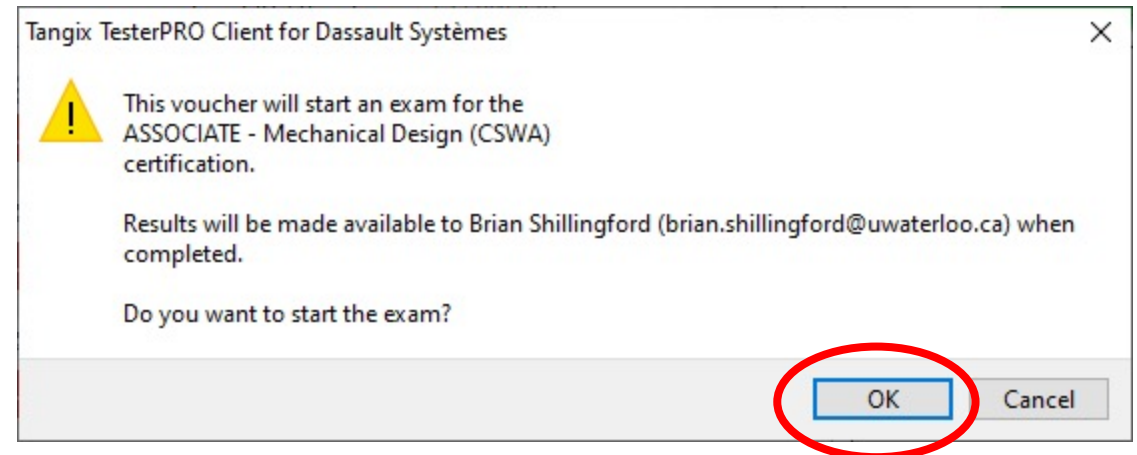
Select SolidWorks from the software options



# Accessing the Exam (cont'd)



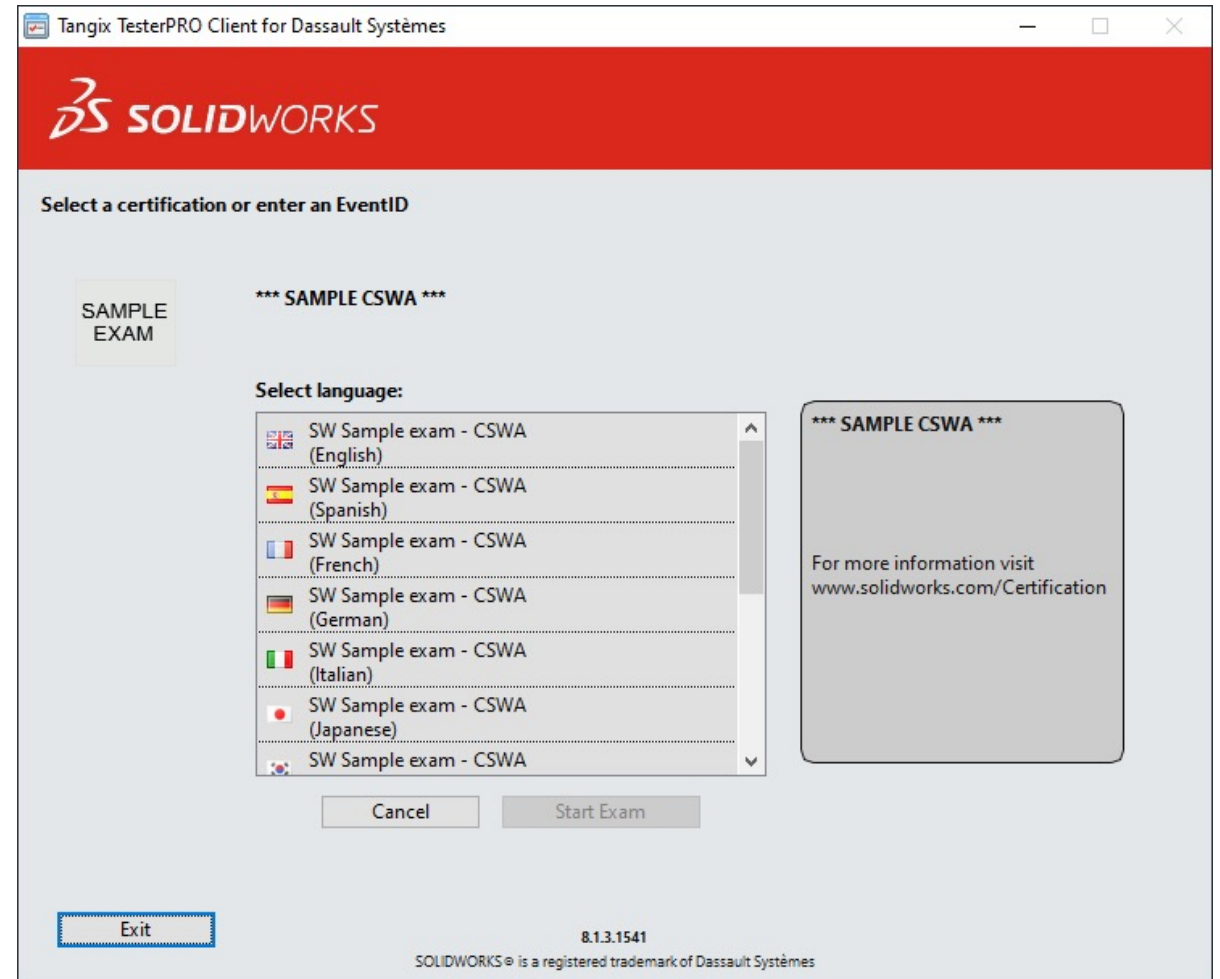
Enter the voucher number that you have received



After entering the voucher, a pop-up window will appear. Click “OK” to continue and start the exam

# Accessing the Exam (cont'd)

After entering your voucher and clicking “OK” on the pop-up box you will be asked to select your language for the exam. After selecting your language click “Start Exam” and the exam will begin.



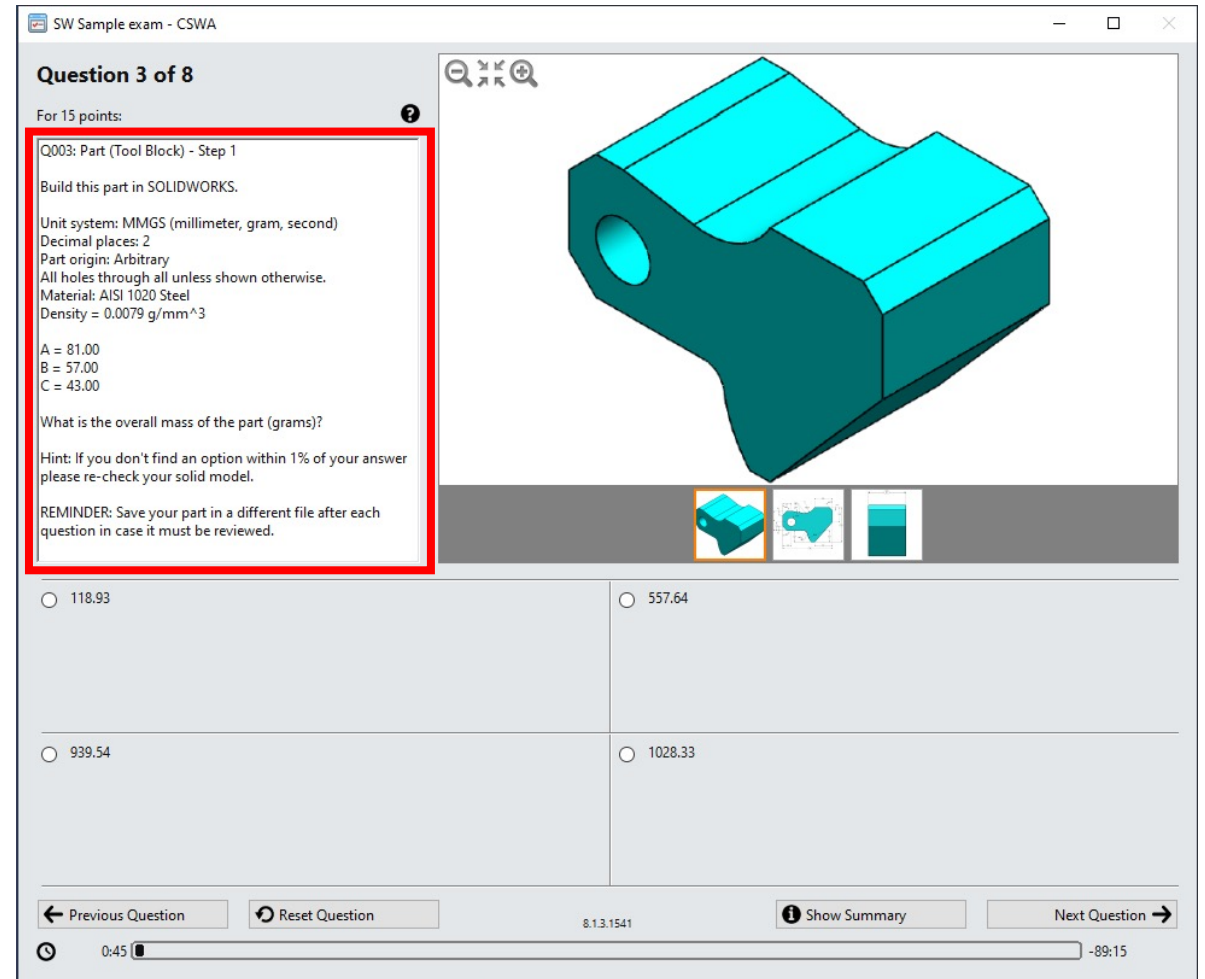
# CSWA Exam

The CSWA exam is comprised of three sections:

- drawing view knowledge
- part modelling
- bottom-up assembly (an assembly using pre-built parts)

For all questions there are instructions in the dialogue box on the left. Read and understand the question before submitting your answer. Some questions will be multiple-choice, and others will ask the user to enter a value.

You have 180 minutes to complete the exam. In order to pass the exam, you must receive a minimum score of 70%



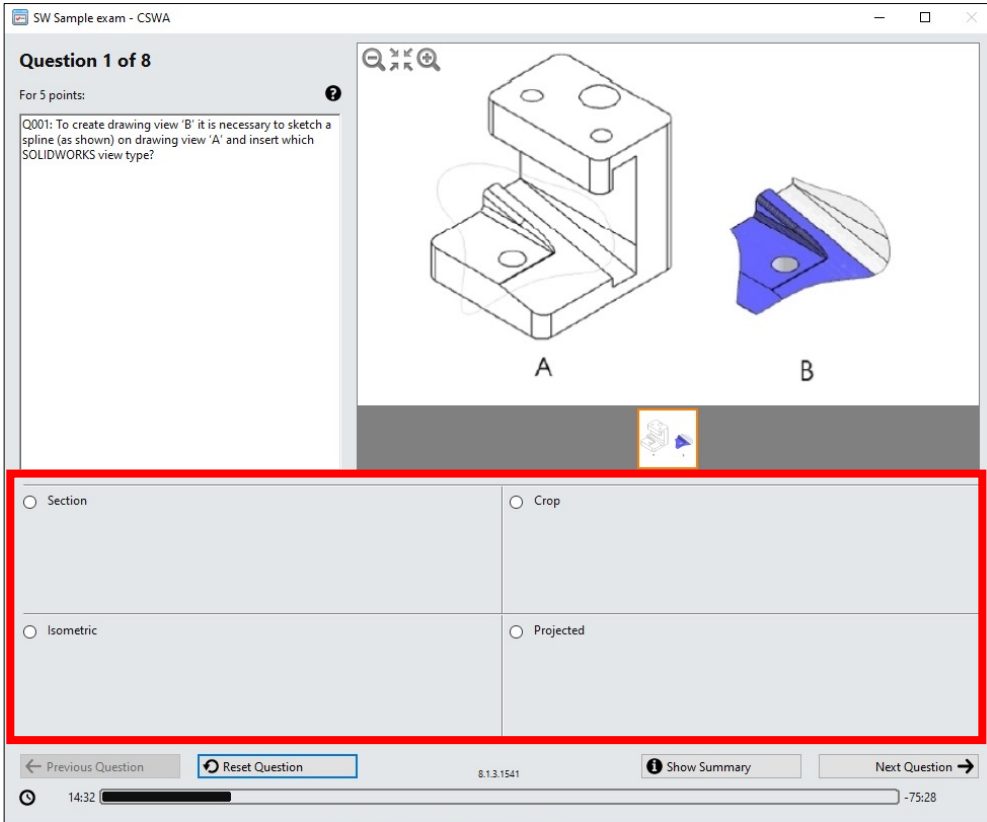
The screenshot shows a software window titled "SW Sample exam - CSWA". On the left, a red-bordered box contains the following text:

**Question 3 of 8**  
For 15 points:  
Q003: Part (Tool Block) - Step 1  
Build this part in SOLIDWORKS.  
Unit system: MMGS (millimeter, gram, second)  
Decimal places: 2  
Part origin: Arbitrary  
All holes through all unless shown otherwise.  
Material: AISI 1020 Steel  
Density = 0.0079 g/mm<sup>3</sup>  
A = 81.00  
B = 57.00  
C = 43.00  
What is the overall mass of the part (grams)?  
Hint: If you don't find an option within 1% of your answer please re-check your solid model.  
REMINDER: Save your part in a different file after each question in case it must be reviewed.

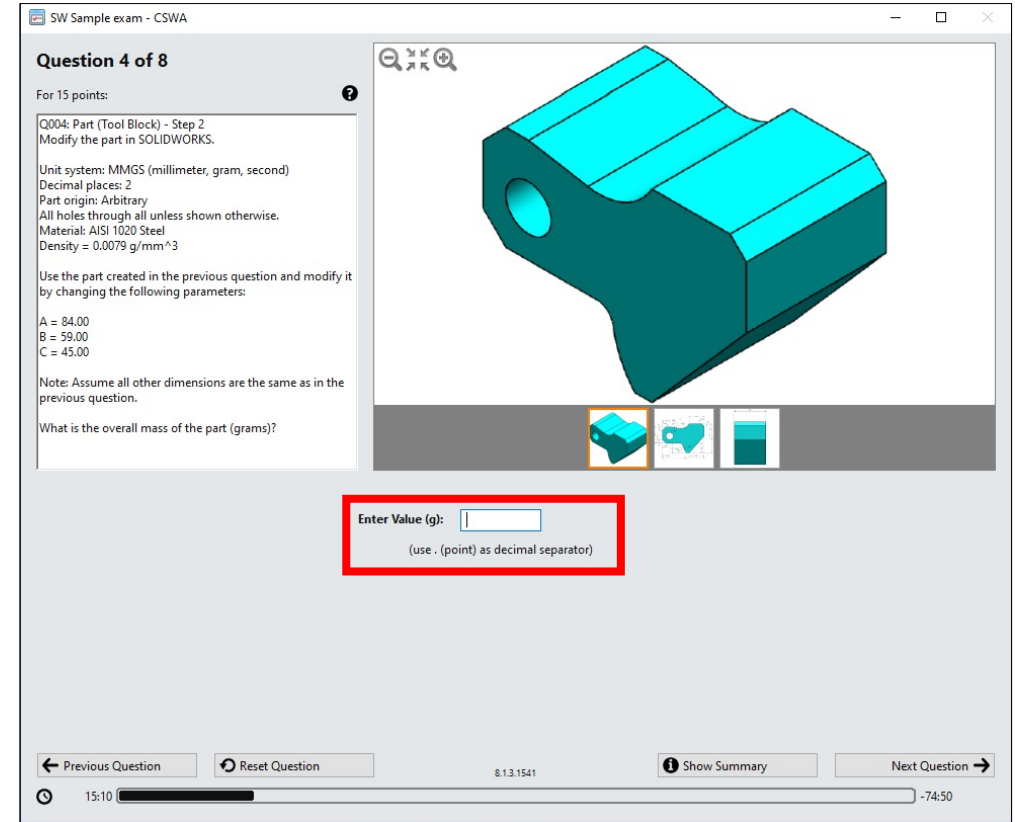
On the right, a 3D model of a cyan-colored mechanical part is shown. Below the model are three small icons: a 3D view, a 2D drawing view, and a mass properties view.

At the bottom, there are four radio button options for the mass: 118.93, 557.64, 939.54, and 1028.33. The interface also includes navigation buttons for "Previous Question", "Reset Question", "Show Summary", and "Next Question", along with a timer showing 0:45 and a score of -89/15.

# CSWA Exam



Example of a multiple-choice question



Example of a user input question

# CSWA Exam – Part Modelling

In the part modeling questions there are multiple views of the part that you can access, and you are able to zoom in and out of the views as well.

The screenshot shows a SolidWorks CSWA exam question interface. The window title is "SW Sample exam - CSWA". The question is "Question 3 of 8" and is worth 15 points. The question text is:

Q003: Part (Tool Block) - Step 1  
Build this part in SOLIDWORKS.  
Unit system: MMGS (millimeter, gram, second)  
Decimal places: 2  
Part origin: Arbitrary  
All holes through all unless shown otherwise.  
Material: AISI 1020 Steel  
Density = 0.0079 g/mm<sup>3</sup>  
A = 81.00  
B = 57.00  
C = 43.00

What is the overall mass of the part (grams)?

Hint: If you don't find an option within 1% of your answer please re-check your solid model.

REMINDER: Save your part in a different file after each question in case it must be reviewed.

The 3D model of the part is shown on the right. It is a cyan-colored part with a grey base. The dimensions are: a top width of 29, a 45-degree chamfered edge, a vertical height of 5, a total height of 24, a radius of R19, and a width of 14. The part is shown in a perspective view. There are zoom controls (a magnifying glass with plus and minus signs) and view orientation icons (isometric, top, front, left) at the bottom of the model area, both of which are circled in red.

The answer options are:

- 118.93
- 557.64
- 939.54
- 1028.33

At the bottom of the interface, there are buttons for "Previous Question", "Reset Question", "Show Summary", and "Next Question". A timer shows 1:36 and a score of -88:24.

# CSWA Exam – Assembly

In the assembly section of the exam, you will be asked to create an assembly using provided parts. You will need to download the .zip file and extract the part files.

**Question 7 of 8**  
For 30 points:

Q007: Build this assembly in SOLIDWORKS (Chain Link Assembly)

- Download the attached zip file and open it.
- Save the contained parts and open those parts in SOLIDWORKS. (Note: If SOLIDWORKS prompts "Do you want to proceed with feature recognition?" please click "No".)
- IMPORTANT: Create the Assembly with respect to the Origin as shown in isometric view. (This is important for calculating the proper Center of Mass)
- Create the assembly using the following conditions:

1. Pins are mated concentric to chain link holes (no clearance).
2. Pin end faces are coincident to chain link side faces.

Unit system: MMGS (millimeter, gram, second)  
Decimal places: 2

Attachment to this question

ChainLinkAssembly.zip (87.3 kB)

X = 308.53, Y = -109.89, Z = -61.40

X = 298.66, Y = -17.48, Z = -89.22

X = 348.66, Y = -88.48, Z = -91.40

X = 448.66, Y = -208.48, Z = -34.64

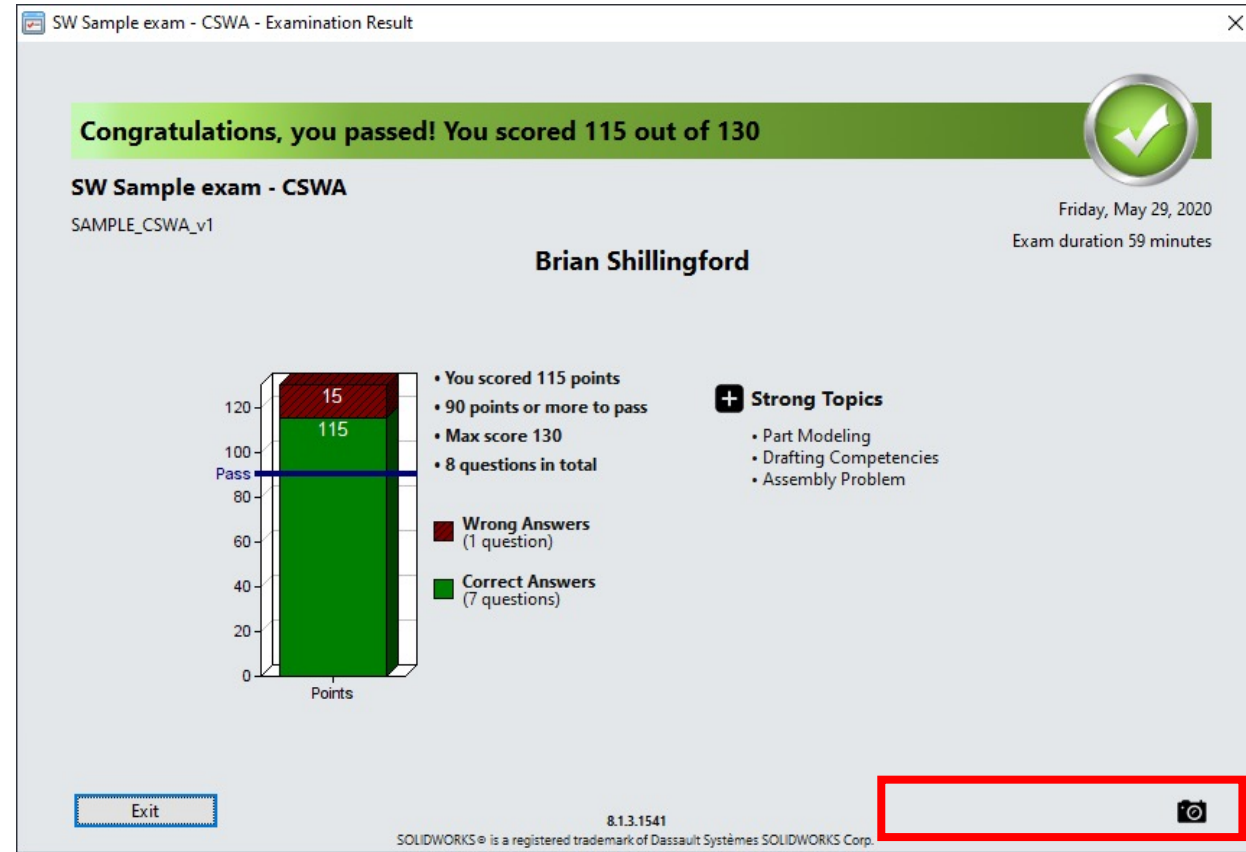
← Previous Question    Reset Question    8.1.3.1541    Show Summary    Next Question →

2:12    -87:48

# CSWA Exam

After completing the exam your results will be displayed immediately and indicate if you have passed the exam or not.

If you have completed the official exam in the bottom right corner next to the camera icon there will be an option to download your certificate.\*



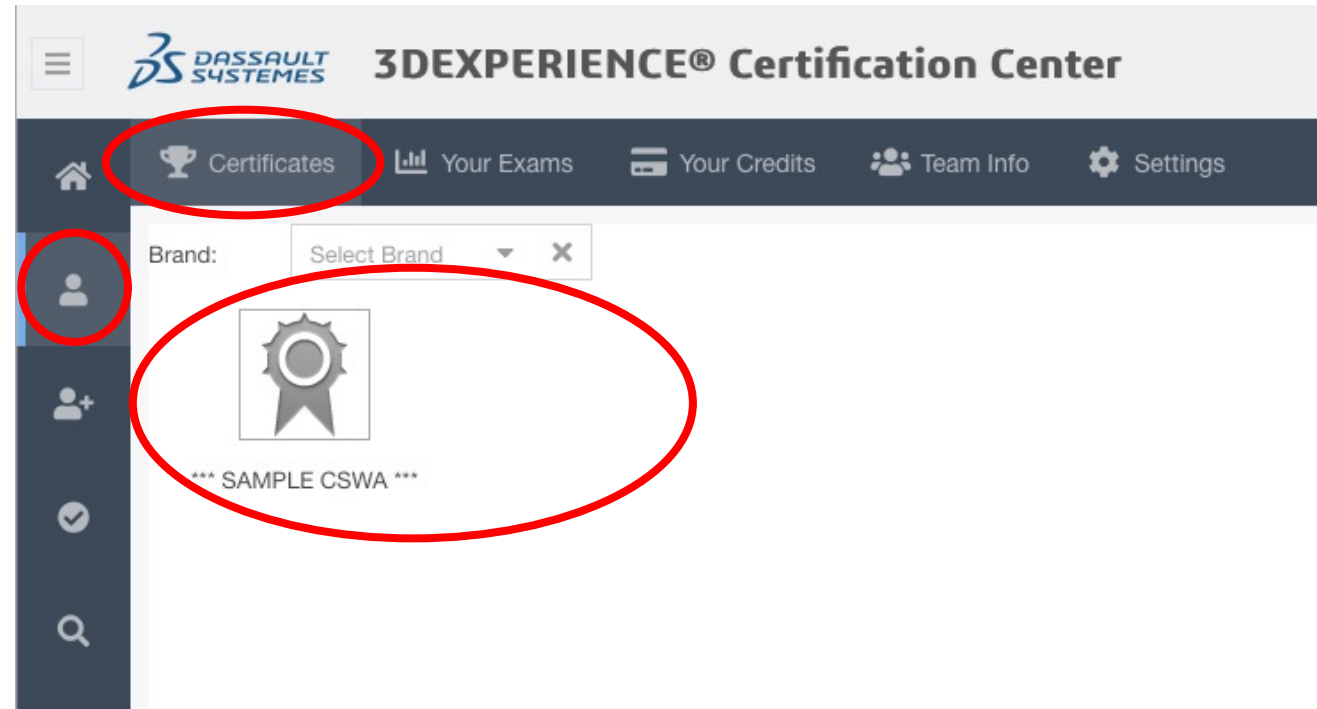
\*Note this is a screen shot from the sample exam so there is no option to download the certificate

# Access Certificates

You can access your certificates online by logging into your account using your VirtualTester UserID credentials

<https://3dexperience.virtualtester.com>

Select the Certificates tab under My Account to access your certificates. They will be available for PDF download





# LinkedIn

Upon successfully completing the CSWA or CSWP exam it is a good idea to link your certificate to your LinkedIn profile.

If you don't already have any licenses or certificates on your profile add "Licenses & Certifications" from the "Add profile section" drop down menu.

Fill out the form with the correct credentials and be sure to use your unique certificate number.

Credential URL:

<https://cv.virtualtester.com/qr/?b=SLDWRKS&i=C-XXXXXXXXXX>

**Edit licenses & certifications**

Name \*  
Certified SolidWorks Associate - Mechanical Design

Issuing Organization \*  
Dassault Systèmes

This credential does not expire

Issue Date: July 2020  
No Expiration Date: -

Credential ID: C-XXXXXXXXXX  
*Unique certificate number*

Credential URL: <https://cv.virtualtester.com/qr/?b=SLDWRKS&i=C-XXXXXXXXXX>

We no longer share changes to licenses & certifications with your network. [Learn how these are shared and when](#)

Delete Save

# Requesting a Voucher

Before requesting a voucher, you first need to complete (**and pass**) the sample exam using the official testing software. Once you've done that you can send a screen shot of the results along with the following information to Brian Shillingford

[brian.shillingford@uwaterloo.ca](mailto:brian.shillingford@uwaterloo.ca)

- Given name(s):
- Last name(s):
- Email (uwaterloo):
- User ID (not student number):
- Program:
- Term:
- Exam (CSWA/CSWP):

# Closing Remarks

After reviewing this presentation if you have any questions about the CSWA or CSWP process or how to prepare for the exams please contact Brian Shillingford.

[brian.shillingford@uwaterloo.ca](mailto:brian.shillingford@uwaterloo.ca)

Good Luck!

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