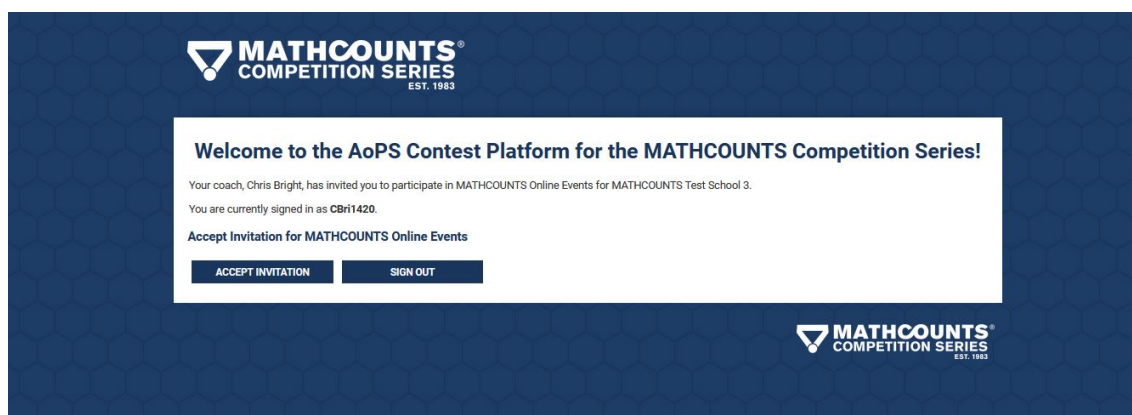


Creating a Student Account on the AoPS Contest Platform

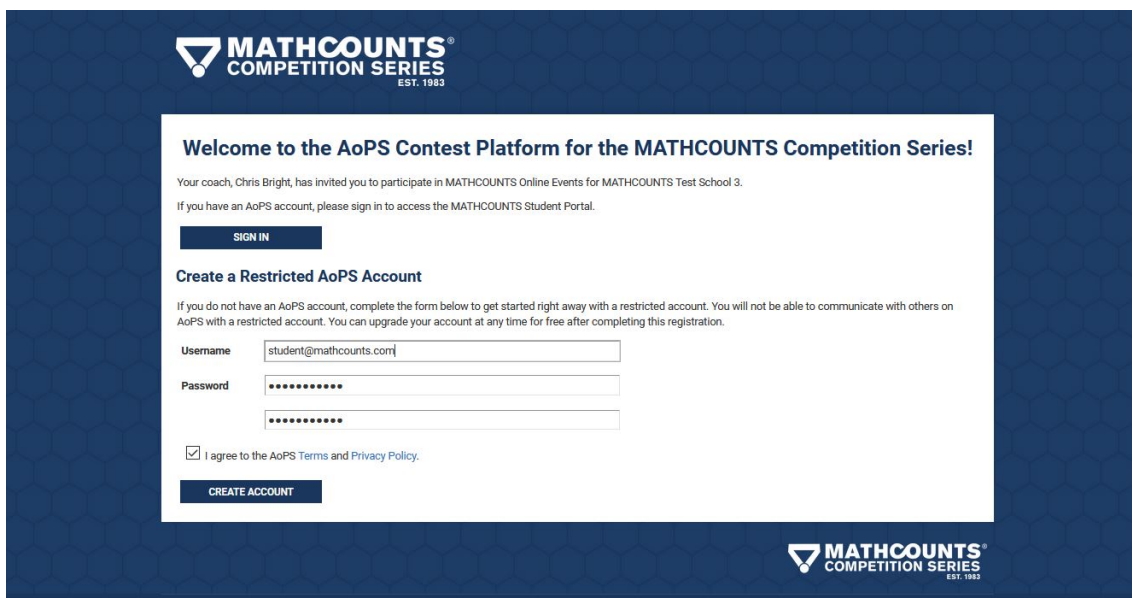


Once coaches join the AoPS Contest Platform, they can invite their students to create free student accounts so they can access MATHCOUNTS practice and official competitions. Below are the steps students should take to connect to their school on the platform.

1. Coaches must email the Student Invitation Link on their Coach Portal to any students they want to invite to the AoPS Contest Platform. Once students click on the Invitation Link, they will be directed to the AoPS website where they can click "Accept Invitation."



2. After accepting the invitation, students will create their free account by entering a username and password, or by signing in with an existing username and password if they already have an account with AoPS.



3. After creating a username and password, students will be directed to the MATHCOUNTS Competition Student Online Events Information Form. This form must be completed to finalize the student account and allow access to the Student Portal.

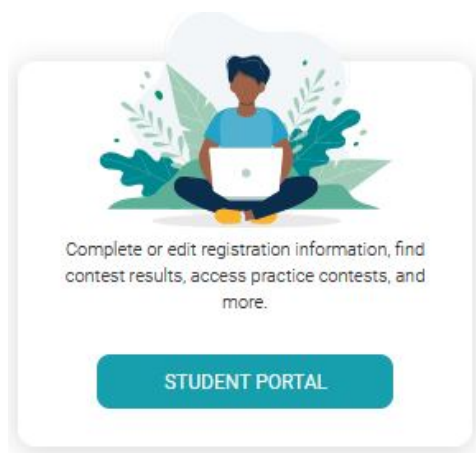
The screenshot shows the 'MATHCOUNTS Student Portal' registration form. At the top is the MATHCOUNTS Competition Series logo (EST. 1983). The form title is 'MATHCOUNTS Student Portal' and the subtitle is 'MATHCOUNTS Competition Series Online Events Information Form'. The form fields include: First Name, Last Name, Middle Initial (Optional), Grade (radio buttons for 6th, 7th, 8th), Gender (radio buttons for Female, Male, Other/Non-binary, and a text field for 'Prefer not to answer'), Ethnicity (radio buttons for White, Hispanic/Latino or Spanish Origin, Black or African American, Asian, American Indian or Alaskan Native, Middle Eastern or North African, Native Hawaiian or Pacific Islander, and a text field for 'Multiple Categories or Other'), Parent Email Address, Parent Phone Number, Home Address, Home City, Home State, and Home Zip. A privacy policy notice is present below the form fields. At the bottom is a 'SUBMIT INFORMATION' button. The MATHCOUNTS logo is at the bottom right of the page.

4. From the Student Portal, students will have the ability to:
- Access MATHCOUNTS practice and official competitions.
 - Review and edit student information.
 - View their individual results from practice and official competitions.
 - View a schedule of upcoming events, including competitions and competition discussions with AoPS instructors.

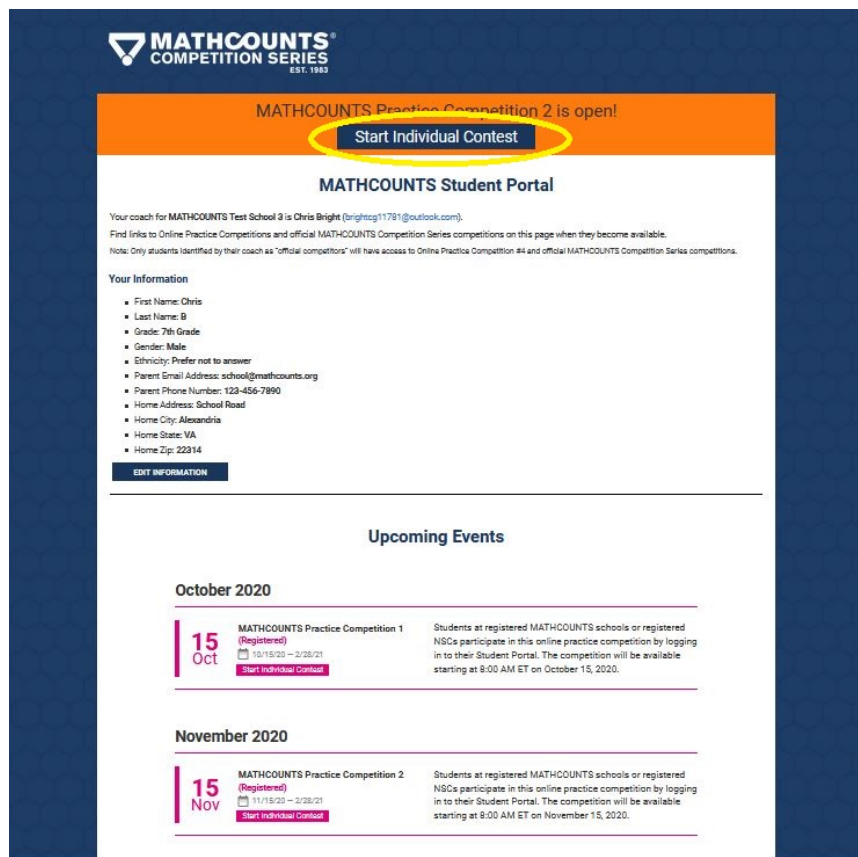
The screenshot shows the MATHCOUNTS Student Portal dashboard. At the top is the MATHCOUNTS Competition Series logo (EST. 1983). Below the logo is an orange banner with the text 'MATHCOUNTS Practice Competition 2 is open!'. Below the banner are two buttons: 'View Individual Results' and 'Start Team Contest'. The main heading is 'MATHCOUNTS Student Portal'. Below this is a message: 'Your coach for MATHCOUNTS Test School 3 is Chris Bright (brightcg1781@outlook.com). Find links to Online Practice Competitions and official MATHCOUNTS Competition Series competitions on this page when they become available. Note: Only students identified by their coach as "official competitors" will have access to Online Practice Competition #4 and official MATHCOUNTS Competition Series competitions.' Below this is a section titled 'Your Information' with a list of student details: First Name: Chris, Last Name: B, Grade: 7th Grade, Gender: Male, Ethnicity: Prefer not to answer, Parent Email Address: school@mathcounts.org, Parent Phone Number: 123-456-7890, Home Address: School Road, Home City: Alexandria, Home State: VA, Home Zip: 22314. Below this is an 'EDIT INFORMATION' button. The next section is 'Upcoming Events'. Under 'October 2020', there is a calendar icon for October 15th, a box for 'MATHCOUNTS Practice Competition 1 (Registered)' with dates 10/15/20 - 2/28/21, and buttons for 'Start Individual Contest' and 'Start Team Contest'. A description states: 'Students at registered MATHCOUNTS schools or registered NSCs participate in this online practice competition by logging in to their Student Portal. The competition will be available starting at 8:00 AM ET on October 15, 2020.' Below this is a section for 'November 2020'.

Accessing MATHCOUNTS Competitions on the AoPS Contest Platform

1. Once a student is ready to begin a competition, they will sign into their AoPS account and 1) click on the MATHCOUNTS Competition Series icon on the AoPS homepage and then 2) click on their Student Portal icon.



2. Once a student has access to their Student Portal, they can begin available competitions by clicking on the "Start Individual Contest" button at the top of the page.

A screenshot of the MATHCOUNTS Student Portal interface. At the top left is the MATHCOUNTS Competition Series logo. Below it, a yellow banner contains the text "MATHCOUNTS Practice Competition 2 is open!" and a button labeled "Start Individual Contest" which is circled in yellow. The main heading is "MATHCOUNTS Student Portal". Below this, a message states: "Your coach for MATHCOUNTS Test School 3 is Chris Bright (brightcg11791@outlook.com). Find links to Online Practice Competitions and official MATHCOUNTS Competition Series competitions on this page when they become available. Note: Only students identified by their coach as 'official competitors' will have access to Online Practice Competition #4 and official MATHCOUNTS Competition Series competitions." A section titled "Your Information" lists student details: First Name: Chris, Last Name: B, Grade: 7th Grade, Gender: Male, Ethnicity: Prefer not to answer, Parent Email Address: school@mathcounts.org, Parent Phone Number: 123-456-7890, Home Address: School Road, Home City: Alexandria, Home State: VA, Home Zip: 22314. Below this is an "EDIT INFORMATION" button. The "Upcoming Events" section lists two events: "October 2020" with "MATHCOUNTS Practice Competition 1 (Registered)" on 10/15/20 - 2/28/21, and "November 2020" with "MATHCOUNTS Practice Competition 2 (Registered)" on 11/15/20 - 2/28/21. Both events include a "Start Individual Contest" button and a description: "Students at registered MATHCOUNTS schools or registered NSCs participate in this online practice competition by logging in to their Student Portal. The competition will be available starting at 8:00 AM ET on October 15, 2020." and "starting at 8:00 AM ET on November 15, 2020."

3. After clicking on "Start Individual Contest," students will proceed to an introduction page that provides an explanation of the Sprint and Target Round format and rules, time limits and the calculator policy for each round, and the correct process for entering answers. When students are ready to begin the Sprint Round, they will click on the "Start Contest" button and proceed to the Sprint Round and the competition timer will automatically begin (students have 40 minutes to complete this round).

MATHCOUNTS Practice Competition 2 - Individual Contest

What to Expect from a MATHCOUNTS Practice Competition

The MATHCOUNTS Practice Competition #2 consists of two rounds: the **Sprint** and **Target** Rounds. You should be prepared to participate in both of these rounds consecutively; be sure to have **approximately 90 minutes** available before starting this contest. There will be a short (10 minute) break between the two rounds.

On Practice Competition #2, the **Sprint Round** consists of 25 math problems, all presented to you at the same time. You will have 40 minutes to complete as many of the problems as you can. **Calculators are not permitted on this portion of the contest.**

On Practice Competition #2, the **Target Round** consists of 3 pairs of problems. You will have 6 minutes to complete each pair of problems. After completing a pair of problems, you will be given a brief break, then receive the next pair of problems. **Calculators are required on this portion of the contest.**

This is an individual contest designed to test your problem solving abilities. That means that you **should not** talk to anyone else, make use of the internet or any personal (digital or other) communication devices, or make use of notes or other reference materials including dictionaries and translation dictionaries. The only materials that students are allowed to use during the Sprint Round are pens, pencils, and blank scratch paper. During the Target Round, students should also use calculators. Where calculators are permitted:

- Students may use any calculator (including programmable and graphing calculators) that does not contain a QWERTY (typewriter like) keypad.
- Calculators that have the ability to enter letters of the alphabet but do not have a keypad in a standard typewriter arrangement are acceptable.
- Wireless adapters or any other devices that enable calculators to connect to Wi-Fi are not acceptable. Calculators that have built-in Wi-Fi connectivity (rather than an external adapter) are not acceptable.
- Smart phones, laptops, tablets, iPods® and other digital music players, personal digital assistants (PDAs) and any other "smart" devices are not considered to be calculators and may not be used as calculators during competitions.
- Students may not use calculators to exchange information with another person or device during the competition.

Entering your answers

You should enter a single number in each blank. Numbers entered in a blank can be whole numbers, negative numbers, decimals, or multiples of π . To type π , you should write "pi". Units are already provided for you next to each blank when necessary.

For example, if you want to submit $\frac{3\pi}{17}$ you will be given a blank like this:

radians

and should fill it in like this:

radians

All answers must be expressed in simplest form. If you're not familiar with MATHCOUNTS contests, view more details on correct forms of answers here.

Competition Results

Results for Practice Competition #2 will be available on your Student Portal beginning November 22, 2020. On or after November 22, click on "View Results" on your portal to view your overall score and which problems were marked correct and incorrect.

Starting the contest

When you're ready, click "Start Contest" below. When you start, it will immediately begin the contest clock. Do not start or open the contest in more than one window as your answers may be overwritten. We recommend taking the contest on an updated version of Chrome, Firefox, Safari, or Edge on a tablet, laptop, or desktop device (not a mobile phone). Make sure you have time available and pencils and paper ready! Good luck!

START CONTEST **BACK TO STUDENT PORTAL**

4. When participants click "Submit" or the time runs out, students will proceed to the Target Round instructions page, where they will have a 10 minute break before the Target Round begins.

MATHCOUNTS[®]
COMPETITION SERIES
EST. 1982

Next Up: Target Round

Congratulations, you've completed the **Sprint Round**! You now have 10 minutes (9:49 remaining) to take a quick break and grab a calculator before you start the **Target Round**.

This **Target Round** consists of 3 pairs of problems. You will have 6 minutes to complete each pair of problems. After completing a pair of problems, you will be given a brief break, then receive the next pair of problems. **Calculators are permitted on this portion of the contest.**

This is an individual contest designed to test your problem solving abilities. That means that you **should not** talk to anyone else, make use of the internet or any personal (digital or other) communication devices, or make use of notes or other reference materials including dictionaries and translation dictionaries. The only materials that students are allowed to use during the Sprint Round are pens, pencils, and blank scratch paper. During the Target Round, students should also use calculators. Where calculators are permitted:

- Students may use any calculator (including programmable and graphing calculators) that does not contain a QWERTY (typewriter like) keypad.
- Calculators that have the ability to enter letters of the alphabet but do not have a keypad in a standard typewriter arrangement are acceptable.
- Wireless adapters or any other devices that enable calculators to connect to Wi-Fi are not acceptable. Calculators that have built-in Wi-Fi connectivity (rather than an external adapter) are not acceptable.
- Smart phones, laptops, tablets, iPods® and other digital music players, personal digital assistants (PDAs) and any other "smart" devices are not considered to be calculators and may not be used as calculators during competitions.
- Students may not use calculators to exchange information with another person or device during the competition.

If you're ready to continue to the Target Round before the 10-minute break ends, click "Continue" below. When you continue, it will immediately begin the contest clock for the first pair of Target questions. Make sure you have your calculator nearby! Good luck!

CONTINUE

MATHCOUNTS[®]
COMPETITION SERIES
EST. 1982

5. Once the 10 minute break is over, students will proceed to the first pair of Target Round questions and will have 6 minutes to complete each pair of problems. After completing each pair of problems and clicking "Submit", students will be given a brief 1 minute break and then receive the next pair of problems.

MATHCOUNTS[®]
COMPETITION SERIES
EST. 1983

MATHCOUNTS Practice Competition 2

Target Round - Segment 1

Calculators are permitted for this round.
All answers must be expressed in simplest form.
If you're not familiar with MATHCOUNTS contests, view more details on correct forms of answers here.

Time Remaining: 5:24
Status: Answers Saved ✓
SUBMIT

1. If $f(x) = \frac{(3x-2)}{(x-2)}$, what is the value of $f(-2) + f(-1) + f(0)$? Express your answer as a common fraction.

2. rectangles How many rectangles are in the array shown?

Nice job! You've reached the end of the problems - you can scroll back up to check your work, or click the Submit button below to continue.
SUBMIT


6. Once the final pair of Target Round problems have been submitted or the time runs out, students will be directed back to their Student Portal, where they will be able to review their results or begin the Team Round if they are a member of a school team.*

*Results are released one week after each competition becomes available on the Contest Platform.



7. If a student is a member of a school team, they will begin the Team Round by clicking on "Start Team Contest." They will then proceed to an introduction page that provides an explanation of the Team Round format and rules, the time limit and calculator policy for this round, and the correct process for entering answers.

Once all 4 team members are ready to begin the round (communicating with their own devices), the team leader (the first individual identified by the coach when the team was created) will click the "Start Contest" button to open the team waiting room. Teammates will have 1 minute to join the waiting room (by clicking "Start Contest") before the Team Round problems appear and the 20 minute timer starts.



MATHCOUNTS Practice Competition 2 - Team Contest

What to Expect from a MATHCOUNTS Practice Competition

This Team Round consists of 8 math problems, all presented to your team as soon as your team leader starts the contest. Your team will have 20 minutes to complete as many of the problems as you can. Calculators are permitted on this portion of the contest.

Your team will need to find a time during the contest to take the team contest together. The AoPS contest webpage will display problems to all team members, but does not include a way for team members to speak to one another. Make a plan with your team before the contest about when you'll take it and how you'll communicate. Your team will need approximately 20 minutes to take this contest.

This is a team contest designed to test your problem solving abilities. That means that you **should not** talk to anyone other than your teammates, make use of the internet or any personal (digital or other) communication devices, or make use of notes or other reference materials including dictionaries and translation dictionaries. The only materials that students are allowed to use during the Team Round are pens, pencils, blank scratch paper, and calculators. Where calculators are permitted:

- Students may use any calculator (including programmable and graphing calculators) that does not contain a QWERTY (typewriter like) keypad.
- Calculators that have the ability to enter letters of the alphabet but do not have a keypad in a standard typewriter arrangement are acceptable.
- Wireless adapters or any other devices that enable calculators to connect to Wi-Fi are not acceptable. Calculators that have built-in Wi-Fi connectivity (rather than an external adapter) are not acceptable.
- Smart phones, laptops, tablets, iPods/iPads and other digital music players, personal digital assistants (PDAs) and any other "smart" devices are not considered to be calculators and may not be used as calculators during competitions.
- Students may not use calculators to exchange information with another person or device during the competition.

Entering your answers

You should enter a single number in each blank. Numbers entered in a blank can be whole numbers, negative numbers, decimals, or multiples of π . To type π , you should write "pi". Units are already provided for you next to each blank when necessary.

For example, if you want to submit $\frac{3\pi}{17}$ you will be given a blank like this:

radians

and should fill it in like this:

radians

All answers must be expressed in simplest form. If you're not familiar with MATHCOUNTS contests, view more details on correct forms of answers here.

Competition Results


Results for Practice Competition #2 will be available on your Student Portal beginning November 22, 2020. On or after November 22, click on "View Results" on your portal to view your overall score and which problems were marked correct and incorrect.

Starting the contest

When you're ready, click "Start Contest" below to start the contest for you and your teammates. You'll be brought to a 1-minute waiting room where your teammates can join you. After the 1-minute wait, the contest will automatically begin. Do not start or open the contest in more than one window as your answers may be overwritten. We recommend taking the contest on an updated version of Chrome, Firefox, Safari, or Edge on a tablet, laptop, or desktop device (not a mobile phone). Make sure your team has time available, a way to communicate, and pencils, paper, and calculators ready! Good luck!

[START CONTEST](#) [BACK TO STUDENT PORTAL](#)

8. Once students have completed the Team Round problems, they may exit the page. Answers will be automatically submitted when the full 20 minutes has elapsed. Students do not need to stay on the page once they are done and their answers have saved. Students may return to their portal by clicking on "Back to Student Portal."



MATHCOUNTS Practice Competition 2

Team Round

Calculators are permitted for this round.

All answers must be expressed in simplest form.

If you're not familiar with MATHCOUNTS contests, view more details on correct forms of answers here.

Time Remaining: 19:16
Status: Answers Saved ✓
Your answers will be automatically submitted when the full 20 minutes has elapsed. You do not need to stay on this page once you are done and your answers have saved.

1. cubes

What is the maximum number of cubes of edge length 2 inches that will fit inside a rectangular box whose interior measures 1 foot by 14 inches by 16 inches?