# **Math News**

# **March 2023**

[**Pennsylvania Council of Teachers of Mathematics**](https://pctm.org/)

**2023 Annual Conference**

**July 26-28, 2023  
Ramada Hotel and Conference Center  
1450 S Atherton Street  
State College, Pa 16801**

**Pennsylvania Council of Teachers of Mathematics**

Nominate a great educator for a Pennsylvania Council of Teachers of Mathematics Award!

A written nomination letter outlining why the nominated individual is uniquely qualified to win the award should be submitted by March 31, 2023, to Leigh Nataro at [nataros@moravian.edu](mailto:nataros@moravian.edu).

Award winners will be notified by June 1st and will receive a half-price registration for the PCTM Conference which will be held at the Ramada Hotel and Conference Center from July 26-28, 2023.

* [Outstanding](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfliQ9JtrZjzEv46MY0V-2BJvz9KXhcinNr71KvUYvvDVgPZaVgwFhPlQeMQbDNmorP-2FwU-2BhLJNAWhyhEO9-2BtB5Jbix5GAmFQwX24d12gxIIAlm1Ky9D1OH3LS8ezt-2FZxpGPTwSeTWwNliW5-2BN4g-2F3-2F8-2BwdfSQ_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU20D5IfoZTO4kFznj0k8yY-2Fclw9gYt8pjPtU88ALmgIIwX-2F8TwF68hYyQKFp4gJ2QKBYgXIhNOuO5Fbqs-2FtNQyGyL4Q990I21ff66JBJNCb18pOQC8Y3AM78yKM04rLqjWkI07UwxZDlKhrWcg8WuSq-2Fcadv5qeKo-2BHx0r1P2survp-2B5iQAcF2ziJ-2B8mnkIFXbEyVo1lMe5JCI5KCKnAfWhb6Ctd866xIRQpA0XBs5n0l4u-2FSjgK4Ig49FZXCz0y1sw-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506032491%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=ilh%2BWq0M9CjfoqkWjhw3gg3mESRHzdAVr2LS2rEWsPY%3D&reserved=0) [Contribution to PCTM Award](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfliQ9JtrZjzEv46MY0V-2BJvz9KXhcinNr71KvUYvvDVgPZaVgwFhPlQeMQbDNmorP-2FwU-2BhLJNAWhyhEO9-2BtB5Jbix5GAmFQwX24d12gxIIAlm1Ky9D1OH3LS8ezt-2FZxpGPTwSeTWwNliW5-2BN4g-2F3-2F8-2BwdfSQ_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU20D5IfoZTO4kFznj0k8yY-2Fclw9gYt8pjPtU88ALmgIIwX-2F8TwF68hYyQKFp4gJ2QKBYgXIhNOuO5Fbqs-2FtNQyGyL4Q990I21ff66JBJNCb18pOQC8Y3AM78yKM04rLqjWkI07UwxZDlKhrWcg8WuSq-2Fcadv5qeKo-2BHx0r1P2survp-2B5iQAcF2ziJ-2B8mnkIFXbEyVo1lMe5JCI5KCKnAfWhb6Ctd866xIRQpA0XBs5n0l4u-2FSjgK4Ig49FZXCz0y1sw-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506032491%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=ilh%2BWq0M9CjfoqkWjhw3gg3mESRHzdAVr2LS2rEWsPY%3D&reserved=0) - presented to one of the select few members of the Council who, over the years, has demonstrated outstanding service and leadership to the organization.
* [Outstanding Contribution to Mathematics Education Award](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfliQ9JtrZjzEv46MY0V-2BJvz9KXhcinNr71KvUYvvDVgPSvJXRbAWdahZh9GfMtKYl4PSUT-2BZv35aUqe-2F978T06dc5kGfqZ84S3cvlsnDDjd36Fbum40xWR2QQtLKGFD-2BcPqtaCnUI-2FCQj1aTC-2FXhZyjMMp8DlotqFq0r3rr7EecyQ-3D-3DS0Rx_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU20ZWOF7J0u-2Baut3HwntmoSVyPCmbjiVMEHpe-2FRGql08PQ9Eyqa8eO2aCsj7EP6faefyZnn-2B5QzWV-2BCuyo2Ms4w3aMjw-2BxuTtyD-2Bphpuv5ndHttjlTQz-2FFfyGcepREvNh5v0d-2Bt-2FZQtzvtR6O19YowuazNNBUmv6XCu59Xd6Uv4FpeSVfmVj7-2F7YfsOI-2FeM2GRQ-2FsOrfC2f-2Fn8mFhZt-2BcM1kOd4Oz9EWRgSRlsdOs0Pc6fSmFFkVVDrUvhtTsCwnK-2Bg-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506032491%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=m1ljy0cNI4ZoEK1eOVmHbZKmHkorOX6wns5kmgjGaMw%3D&reserved=0) - presented to a mathematician or a mathematics educator from a public or private school, college or university, or industry, who has made an outstanding contribution to mathematics education in Pennsylvania.
* [Mathematics Hall of Fame Award](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfk1Lpkbq9U457nOLfMT9BsJKaULBwZmkYwoDHMnP9Iw1X2VWaGcJ48Pnoom9pG3z6-2FnwF5KjFDnETp24QwHinQ0inItVXTZAFC55erYeKntpOI4KcEnRxTT81XjEnLsIiUBQSv84qoGALFmOnPzzgHjh_-t_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU2wkHm6BW0VoFLiwQd7ZtnbSU5NDYcq0VrOUSNgjVwsTgrXNwz5Zi9KzD6Cn6qprPvXEfg-2FtLqht8oe2txYfWahZ7cPP0aMdZH-2FKXYug59ijhBngbbogqMgbGu5KD0kp5QYoCzcRYyBHF8oVtH7ADzS5L6jNNZld7BSWrhV6lkXyrvqfb-2FRltZq9DvIp1CCUdADsaZOzLWrWBIlWXHQgIqoGjgQE-2BBQhpzizwMb0Ud-2B4AtvKG6z7opU2NrjqVlsVKcQ-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506032491%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=6lnSXiMX%2BMz6peLp4%2Fja0YGCcnkGIBeLXAM16bMuTok%3D&reserved=0) - regarded by his/her peers as making the greatest impact on mathematics students with continual excellence as a mathematics educator.
* [The](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfmwkQFPTe7hdL8z6-2F1Wk3Dq-2BwCJ7uy-2BPsV9gulDEmo329yLi62igjSLZkdeV32B8ir1U9ldwXtcjmN-2FkXMCJPDsif-2F08DMA2PhRFjdK7JRK2Z9WnpgwIkTvHeNVeoSYIKA-3DO-1O_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU25mLUvfsvjq-2FoqjrygERbYFX6XHOwXjTbbVumopsHLYr5b0ovdhr2Ll-2FTTckiLjupOrldLM21nLpBW0thkwp0smZP0vkuG-2FHOStiTUM28oPaoozxbUs9b0jUcbFi9iQ1pwpwrvuCTSWYXXSU7L9w2ZY2scRY0NqulPkFCr9Y3-2Fjpm6CuU2S1MiJyARt-2FMaUZRA3ZjDeFbxYKTmUe3DHLQ-2BDzpli2dGXhqC5Iq1-2BVaAYw2BwWpkXOqnyJZtoWGzPeyA-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506188706%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=C3hVcPdnAfidrbKjumoxRwqceTe8fjXULsnUt4HvRnw%3D&reserved=0) [PCTM New Teacher Award](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfmwkQFPTe7hdL8z6-2F1Wk3Dq-2BwCJ7uy-2BPsV9gulDEmo329yLi62igjSLZkdeV32B8ir1U9ldwXtcjmN-2FkXMCJPDsif-2F08DMA2PhRFjdK7JRK2Z9WnpgwIkTvHeNVeoSYIKA-3DO-1O_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU25mLUvfsvjq-2FoqjrygERbYFX6XHOwXjTbbVumopsHLYr5b0ovdhr2Ll-2FTTckiLjupOrldLM21nLpBW0thkwp0smZP0vkuG-2FHOStiTUM28oPaoozxbUs9b0jUcbFi9iQ1pwpwrvuCTSWYXXSU7L9w2ZY2scRY0NqulPkFCr9Y3-2Fjpm6CuU2S1MiJyARt-2FMaUZRA3ZjDeFbxYKTmUe3DHLQ-2BDzpli2dGXhqC5Iq1-2BVaAYw2BwWpkXOqnyJZtoWGzPeyA-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506188706%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=C3hVcPdnAfidrbKjumoxRwqceTe8fjXULsnUt4HvRnw%3D&reserved=0) - for K-12 teachers (public or private school) with 1, 2, or 3 years of full-time experience, this award recognizes promising, beginning teachers of mathematics.
* [The](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfmgBguXShQD5qLbC9Hs2SF0uB2QFe0GIZk4vZdLuQ0Gl9B2F8kosj66f31YU4LPL-2Bcwzuac8DdTm4hM2NW8aLJ64Bu4dhxvoVA09Wgr4xSdah8zC9qJZIRL3VCM4vgJxUXjcnILFdAELhDrp73AZqgMrZyk_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU2-2Bdw0PxvWs6K6Fr-2BRenJMVT5gbZSBtRzrCtHpZf5vgavUb8ZERY4L0-2BY-2BJTGdBZ7qA5O5NJNTmROo3T4MRers4I1c5pGp36BrvRLrjoiuIvdhYny7oVBr5nQMm5KUan1dsSp7HBlV-2FihYlld5F2rGeJg-2BtkP-2BrUpS5obkBf73ecNnwlOCqvrlsqAMYQrZ04agy2YQyXormzyAScDF45lWdIye5xQuPiIIbrXs1CPXhjgNQVBVA0FvZVWvmdF3r2wHg-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506188706%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=kyls30wyu9RMd2HJ5hbj6mQCSZUmK%2FQNYK%2FAoOQIrSE%3D&reserved=0) [PCTM Masters of Mathematics Award](https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Femail.joinit.org%2Fls%2Fclick%3Fupn%3DLnM8nwctSGbZ2VqPGqSSThx2cK2Rr2RyjnP7l2bpqfmgBguXShQD5qLbC9Hs2SF0uB2QFe0GIZk4vZdLuQ0Gl9B2F8kosj66f31YU4LPL-2Bcwzuac8DdTm4hM2NW8aLJ64Bu4dhxvoVA09Wgr4xSdah8zC9qJZIRL3VCM4vgJxUXjcnILFdAELhDrp73AZqgMrZyk_VpzrrOV-2FK83cMpYsQT67xTgdACM3a4gI2CaK0gJgKcdOB4LG1LQu4DznxjV53Pxhx0Bw04siNE-2ByCIot2CUVLhezE0-2Bb7ORVtpve5NCbBndYfSZMMy0Zm62n6J6tQ-2BZ4i4r2i-2B9fsGY6HgOuFqlI2bvUGW5Cg4elz7E-2BZ6kUb-2BuiP5XJnsgQFkCcfFnZVj8W2Qq2qsafpmjDGIQqfzdU2-2Bdw0PxvWs6K6Fr-2BRenJMVT5gbZSBtRzrCtHpZf5vgavUb8ZERY4L0-2BY-2BJTGdBZ7qA5O5NJNTmROo3T4MRers4I1c5pGp36BrvRLrjoiuIvdhYny7oVBr5nQMm5KUan1dsSp7HBlV-2FihYlld5F2rGeJg-2BtkP-2BrUpS5obkBf73ecNnwlOCqvrlsqAMYQrZ04agy2YQyXormzyAScDF45lWdIye5xQuPiIIbrXs1CPXhjgNQVBVA0FvZVWvmdF3r2wHg-3D-3D&data=05%7C01%7Ckmauro%40pa.gov%7Cb20533f38e144f7f160c08db038a7721%7C418e284101284dd59b6c47fc5a9a1bde%7C0%7C0%7C638107665506188706%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=kyls30wyu9RMd2HJ5hbj6mQCSZUmK%2FQNYK%2FAoOQIrSE%3D&reserved=0) - for K-12 teachers (public or private school) with at least 7 years of full-time experience, this award is given to one teacher at each of these levels: Primary Master of Mathematics: Kindergarten – Grade 2, Intermediate Master of Mathematics: Grades 3-5, Middle School/Junior High School Master of Mathematics and High School Master of Mathematics.

**Professional Development Opportunities**

**SAS PD Center: Explore Professional Learning Opportunities**

The [SAS PD Center](https://pdc.pdesas.org/Course/CourseCatalog)  has several new offerings to support your professional growth.  Courses are self-paced, are no cost, and provide Act 48 hours. Some sample course titles:

* *Using PBS Learning Media in the Classroom*
* *Introduction to Structured Literacy*
* *Addressing Implicit and Explicit Bias in the Classroom*
* *Comprehensive Mental Health for Teachers*
* *Pathways to Graduation: Guiding Students in Decision Making*
* *Self-Awareness and Reflective Practices for Equitable Classrooms*
* *Trauma-Informed Programs*
* *Specially Designed Instruction for Gifted Learners*

**PSSA and Keystone Exams - Numworks Calculator**

PDE has received questions regarding a new calculator manufactured by Numworks.  In order to comply with the PDE Calculator Policy, test administrators must take the following steps for all students using a Numworks calculator.

1. Clear the memory prior to the test session.
2. Go to Settings.  Under Settings, click Press to Test.
3. Under Press to Test, turn off the following command functions by pressing the EXE button: Exact Results, Equation Solver and Advanced Graphing.  These three command functions must be turned off one at a time.  You will know these functions have been disabled when the orange tab turns grey.
4. Clear the memory once the test session has concluded.

A copy of the PDE Calculator Policy can be found here: [PDE Calculator Policy](https://www.education.pa.gov/Documents/K-12/Assessment%20and%20Accountability/PSSA/Pennsylvania%20Calculator%20Policy.pdf)

[**Office of Elementary and Secondary Education (OESE) General Annual Calendar**](https://www.education.pa.gov/K-12/Pages/OESEAnnualCalendar.aspx)

The Office of Elementary and Secondary Education (OESE) staff has created an online calendar to assist Local Education Agencies (LEAs) in identifying the general timing of annual conferences, training opportunities, activities, report due dates, and grant due dates.

The information included in the OESE calendar should not be considered an exhaustive list of all important dates or deadlines, and any omission or error is inadvertent. Additions, suggestions, and corrections can be submitted for consideration to: [RA-EdSchoolSupport@pa.gov](mailto:RA-EdSchoolSupport@pa.gov).