



4TH ANNUAL

BUILDING THINKING CLASSROOMS[®] CONFERENCE 2026



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NEW HAVEN, CT

JUNE 29 – 30, 2026



Using Technology in the BTC Classroom

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FERMI PROBLEM

There are 800+ attendees at the Building Thinking Classrooms Conference 2026. What is the total number of miles the attendees travelled to New Haven (one way)? Your group may use a calculator but show your thinking and computations on your VNPS.



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Considerations when using technology in the BTC classroom

1. One device per group
2. Input and outputs on calculators displayed on VNPS
3. Laptops - groups of 2
4. Who directs the calculator use?
5. Further suggestions?



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Use five of the six digits below to create a number that is divisible by 2 and 3.

4 5 9 7 6 0



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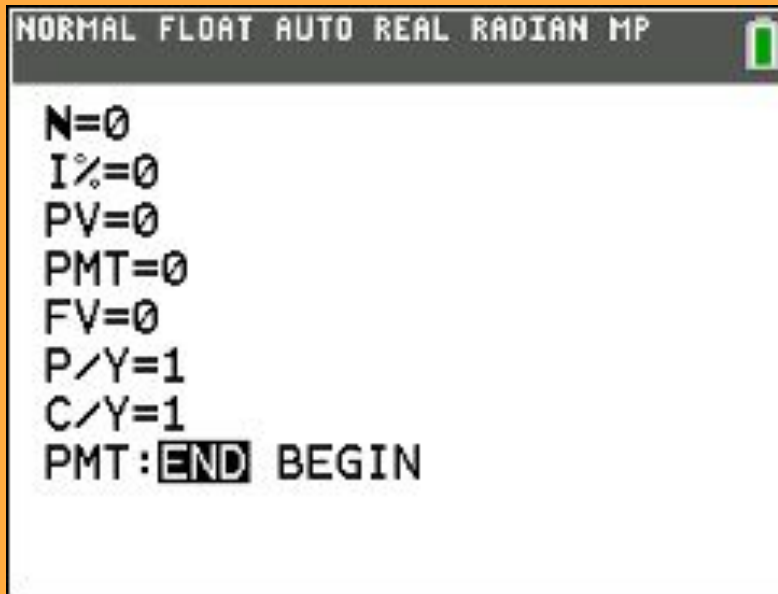
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TVM Solver - TI-84
apps - 1 - 1





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Use the TVM Solver to find the following.

1. How much money would I have to invest at 6% interest compounded quarterly to have \$5000 in 4 years?
2. What are my monthly mortgage payments if I make a \$40,000 down payment on a \$300,000 30 year mortgage at an interest rate of 3.4%?
3. At age 22, I put \$200 a monthly in an account earning 6.2% compoundly monthly? How much money will I have when I retire at age 60?



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Introducing *TI-84 Evo*



<https://sites.google.com/view/ti-84-evo/home>



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Inverses on the *TI-84 Evo*

Using TI-84 Evo to Explore the Symmetry of Inverses

Set the Stage

1. In this activity we explore the graphs of the two equations $y = -(x - 2)^2 + 8$ and $x = -(y - 2)^2 + 8$ which are inverses of each other.
 - Use **2nd Format** to turn on the Gridline.
 - Press **Zoom** and select 4:ZDecimal.
 - From the home screen, select the **Lines and Conics App**.



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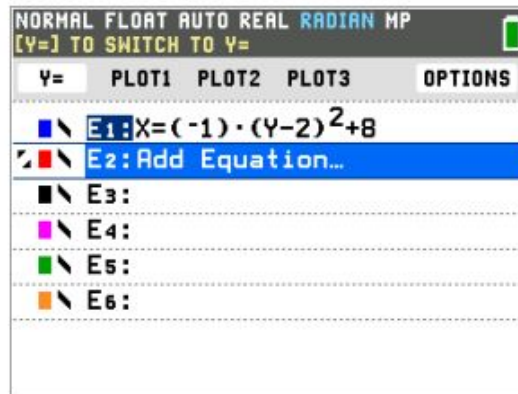
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Inverses on the TI-84 Evo

- Position your cursor on an entry line and press **[enter]** to add an equation. Select the template to enter $x = -(y - 2)^2 + 8$.





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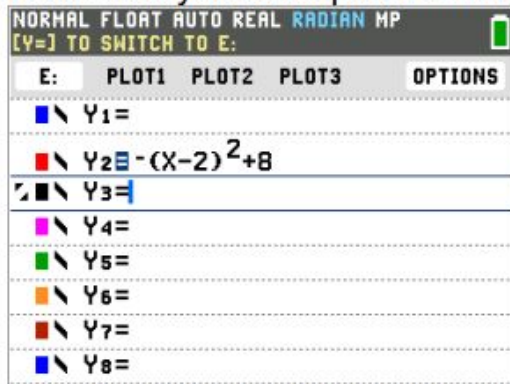
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Inverses on the *TI-84 Evo*

- Notice the yellow help in the status bar.



We press $Y=$ to toggle back and forth from the common conic equation templates (**E:**) to functions (**Y=**).
Enter $y = -(x - 2)^2 + 8$.



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Desmos - Constructing Polynomials

Hey, students!

Go to student.amplify.com/join and type in:

8A

4P

XZ

https://classroom.amplify.com/activity/561bd514fbd28d130f1f12c8?utm_campaign=share&utm_content=activity



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Bootstrap - Data Science and Programming



State Demographics Starter File

<https://bit.ly/4vzPRN7>

https://classroom.amplify.com/activity/561bd514fbd28d130f1f12c8?utm_campaign=share&utm_content=activity



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Bootstrap - Data Science and Programming

Click Run.

Type states-table to see the data.

Create a scatter-plot.

```
scatter-plot(states-table,  
"state","median-income","per-capita-income")
```



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Bootstrap - Data Science and Programming

With your partner, create a scatter-plot using 2 different variables. Predict what the scatter-plot would look like before you create the scatter-plot in Pyret.



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Bootstrap - Data Science and Programming

The dataset is designed so that students will quickly begin searching for relationships between varying levels of education and income, and there are linear relationships in each of them. Here are a few relationships to spark students' interest.

- `pct-college-or-higher` vs. `pct-in-poverty`
- `median-income` vs. `pct-college-or-higher`
- `median-income` vs. `pct-home-owners`
- `pct-college-or-higher` vs. `pct-home-owners`
- `pct-home-owners` vs. `num-housing-units`
- `median-income` vs. `per-capita-income`



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bit.ly/4eDAayz



Thanks for attending!!

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