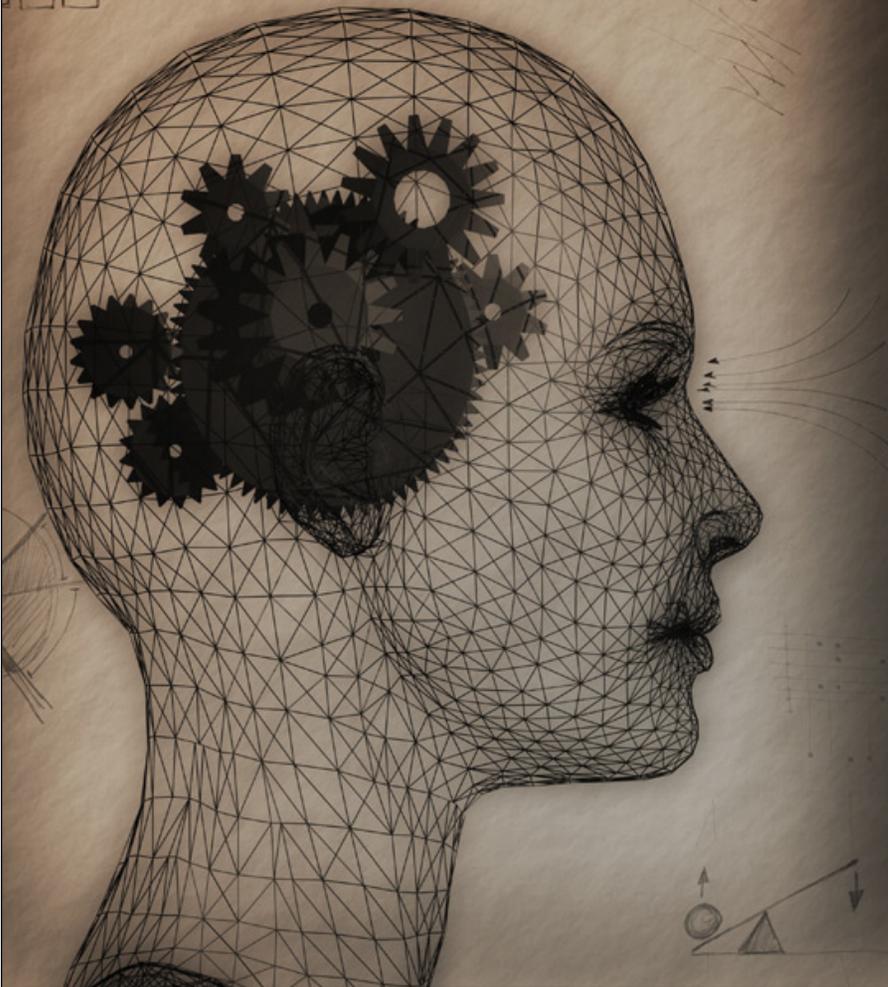


How To Transform STEM Learning ...with Teaching



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Union County College
Techniques for Improving Engagement
of STEM Students
20, October 2012
Elizabeth, NJ

To get from his high school to his home, Martin travels 5.0 miles east and then 4.0 miles north. When Veronica goes to her home from that same high school, she travels 8.0 miles east and 2.0 miles south.

What is the approximate measure of the shortest distance, between Martin's home and Veronica's home?

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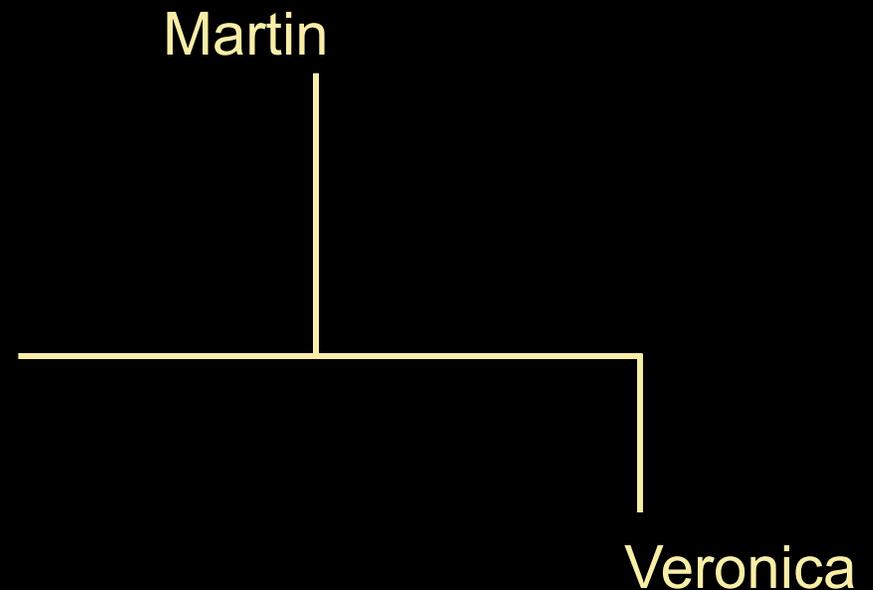
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2. ~6 miles
3. ~9 miles
4. ~17 miles

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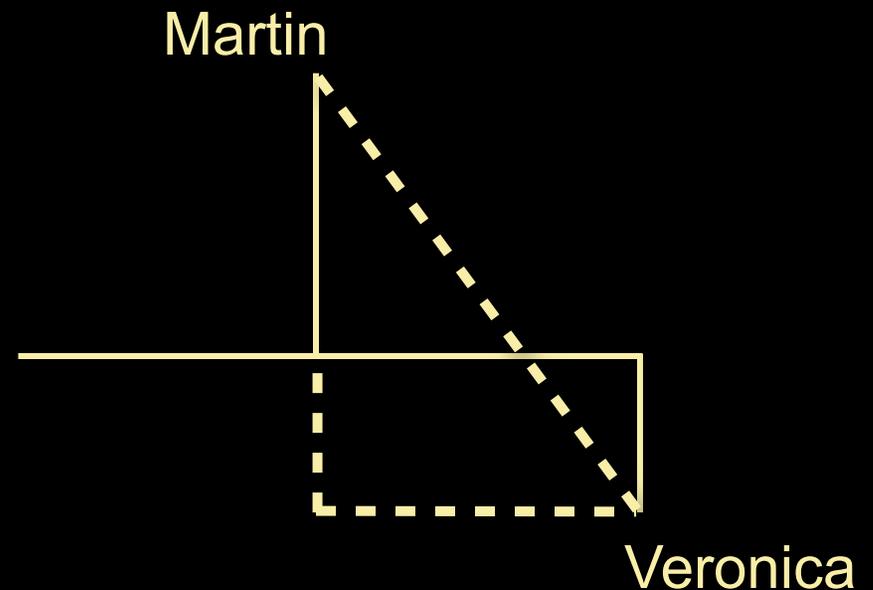
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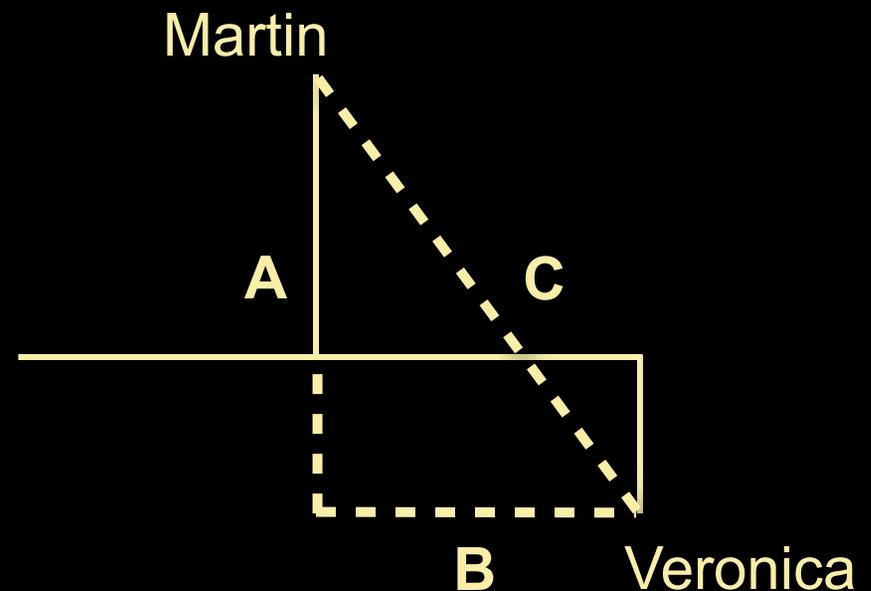
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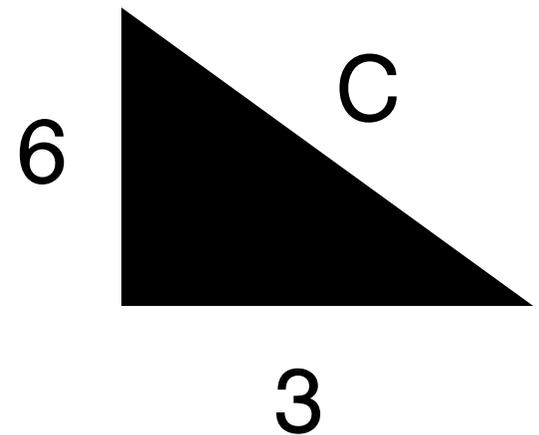


What percentage of
10th grade MA
students got this
problem right?

We Tell

$$a^2 + b^2 = c^2$$

We Test



C=6.7 A+

**The primary model of
education is
situated learning...**

but the **ultimate**
purpose of education
is
knowledge transfer.



Education doesn't
have to be this way.



How can we teach
for transfer?

Tip 1

Forget what you heard
there *is* a time for
lecture!



LIDET

• VIDEO -> YouTube, REWARDS; COMPLETION
↳ LEVEL INTERACTIVE

• INTERACTIVE

CALL

• RECIPE BK

• FACEBK By NIKI.

• PODCAST -> AUDIO; VIDEO

• SYLLAB

• TRN, MAN ... VIVAL ... E E

• BLOG

~ PROB!

TODAY!

“If you want a mind to change, simply talking to it might not be enough.”

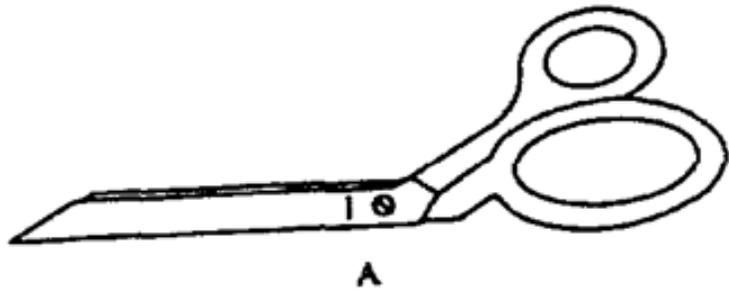
Alix Spiegel, NPR News

Leverage the notion of a “Time for Telling.”

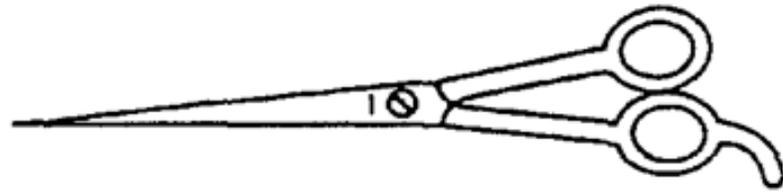
Tip 2

No matter how much
you want to, you
can't teach them
everything.

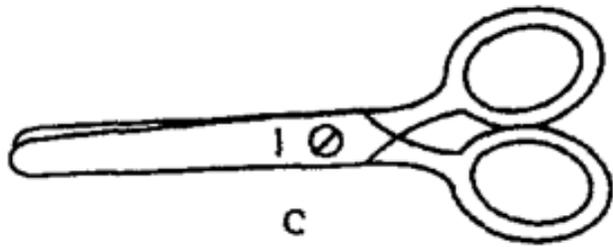
Leverage the power of Big Ideas.



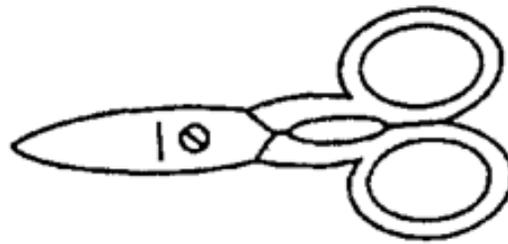
A



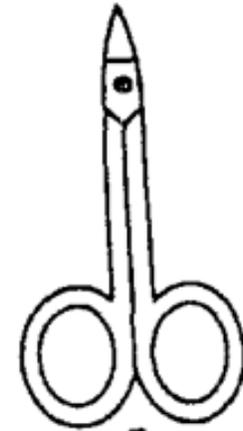
B



C



D



E

Tip 3

Picture your students
....as Goldilocks.



Leverage the power of human motivation.

Tip 4

Turn your students
into karate masters.



Leverage the power of metacognition.

Resolved Question

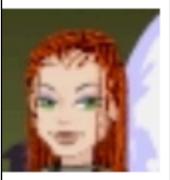
[Show me another »](#)

A really hard pythagorean theorem math question.?

Two ships leave port at the same time. Ship X is heading due north and Ship Y is heading due east. Ten hours later they are 500 miles apart. If the Ship X had traveled 400 miles from the port, how many miles had Ship Y traveled?

Its driving me insane! I know it's not 100, and the only possible answers are 300, 210, and 330

Don't really tell me the answer just tell me how I could solve it. Thanks in advance =D



Amber
ecstatic



rachel.

how is that that the pythagorean theorem?? anyway i have no clue!!

4 years ago

0% 0 Votes

Education doesn't
have to be this way...

transform STEM
learning by teaching
for transfer.

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**How People Learn, Bransford et al.
Time for Telling, Daniel Schwartz
Sciencegeekgirl Blog, Stephanie Chasteen
Understanding by Design, Wiggins & McTighe
Why Don't Students Like School?, Daniel Willingham
McKeachie's Teaching Tips
Drive, Dan Pink
Ken Bain**

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