

“Thoughtless Excellence: When Students Succeed without Thinking”

Learning to Speak Russian

If you hear:

- Preevyet
- Kak dyela
- Boodyet lee doshzd

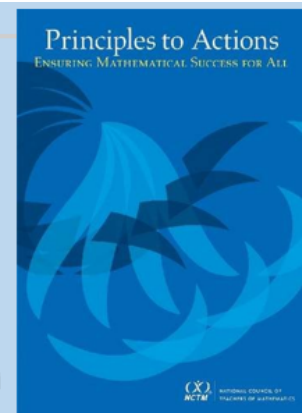
Respond with:

- Preevyet
- Ya karasho, spaseeba
- Moshzet bweet.



Unproductive Beliefs

- Mathematics learning should focus on practicing procedures and memorizing basic number combinations.
- The role of the student is to memorize information that is presented and then use it to solve routine problems.
- An effective teacher makes mathematics easy for students by guiding them through problem solving to ensure that they are not frustrated or confused.

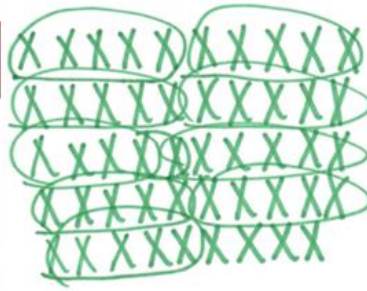


Student Samples

1

$$\begin{array}{r} 9.8 \\ 5 \overline{)490} \\ \underline{-45} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

3



2



Write an equation:

X	Y
1	3
2	5
3	7

How many squares in picture 9?



Picture 1

Picture 2

Picture 3

VisualPatterns.org



Better Questions → student thinking

1. Type of interaction
 - Game show host : contestant interaction?
 - Human : human interaction?
2. Kinds of responses
 - Textbook thinking.
 - Teacher thinking.
 - Classmate thinking.
 - Student thinking.



Adding Thought to Excellence

Thoughtful

- Reasoning
- Explanations
- Standards for Mathematical Practice
- Conceptual Understanding
- Problems
- Productive Struggle

Excellence

- Results
- Answers
- Content Standards
- Procedural Fluency
- Exercises
- Memorized Procedures



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