



## Make America Smart Again!

By Ed Meyer

What does it mean to be “smart?” In my experience, smart is the ability to solve challenging problems. The process of solving challenging problems is usually an iterative procedure that involves both gathering information and thinking hard for a long time.

Gathering information is usually the easy part. To gather information, you can make a phone call, consult with experts, search the internet, and perhaps even read a book.

The challenging part is to think intensely and relentlessly about the problem. You must thoroughly explore the solution space, and you must consider the future ramifications of any possible solution.

The only way to develop the ability to think intensely for a long time is to think intensely for a long time. This ability is sorely lacking among today’s youth. The main reason is that the administrators in traditional education do not want the students to struggle.

To make America smart again, we need to return to traditional schooling that involved challenging students with difficult problems and giving them the opportunity to struggle.

This is something that has been done forever in the history of humans. Here is a problem from Boris Kordemsky’s “The Moscow Puzzles,” titled, “The Idler and the Devil.” It is reproduced below.

*An idler sighed: “Everyone says, ‘We don’t need idlers. You are always in the way. Go to the devil!’ But will the devil tell me to get rich?” No sooner did the idler say this than the devil himself stood in front of him.*

*“Well,” said the devil, “the work I have for you is light, and you will get rich. Do you see the bridge? Just walk across and I will double the money you have now. In fact, each time you cross I will double your money.”*

*“You don’t say!” “But there is one small thing. Since I am so generous you must give me \$24 after each crossing.” The idler agreed. He crossed the bridge,*

*stopped to count his money . . . a miracle! It had doubled. He threw \$24 to the devil and crossed again. His money doubled, he paid another \$24, crossed a third time. Again, his money doubled. But now he had only \$24, and he had to give it all to the devil. The devil laughed and vanished.*

*The moral: When anyone gives you advice you should think before you act. How much money did the idler start with?*

Figuring out the amount of money the Idler started with is a delightful thinking problem.

Although this problem is frequently used in math classes at the university level, it can be presented to elementary school students as an opportunity to develop their critical thinking and problem solving skills.

If they can’t get the answer, that’s OK. The answer is not important. It is just a number.

There is no point whatsoever in helping anyone get the answer.

Walking the student through the problem to get the answer is about as useful in developing the student’s thinking skills as swimming laps for someone will develop their physical fitness.

Perhaps the student can come back to the problem the next day, the next week, the next month, or even a year later. Tape the problem on the wall as a reminder of the opportunity that awaits.

Struggling to reach a new level of understanding is necessary to become smart.

Knowledge alone is not enough. Without critical thinking skills, you either know or you don’t know, you can’t think hard to figure it out.

*No problem can withstand the assault of sustained thinking. - Voltaire*





# Quote Acrostic

edmeyer.phd

**Instructions:** Fill in the words at the bottom from the clues. Then write those letters in the grid at the top to reveal a quote. Black squares indicate the end of a word and punctuation has been removed. When you're done the first letters of the answers to the clues will be the author of the quote.

## QUOTE

1G	2A	3C	4G	5H	6B	7C	8I	9D		10C	11E		12H	13D	14A		15C	16G	17A	
18F	19B	20A	21G	22I	23C	24H	25I		26C	27E		28H	29F	30G	31D	32B		33G	34E	35F
	36I	37B	38G		39E	40A	41G	42F	43I	44H	45C	46F		47B	48E		49C	50G	51D	
52G	53A	54F	55D		56H	57G		58A	59I	60I	61C	62F								

## CLUES

A. Clothed

20 14 58 53 40 17 2

B. Cultural spirit

19 6 37 47 32

C. Prescience

7 61 49 3 23 15 10 26 45

D. Famous

9 13 31 51 55

E. Done to turkeys and envelopes

11 39 34 27 48

F. Having the floor

35 29 18 62 42 54 46

G. Room where sound reverberates

1 30 16 57 4 50 41 52 33 38 21

H. Baby

44 12 28 5 24 56

I. "\_\_\_\_\_ doing"

43 8 36 59 60 22 25





## Some Opportunities to Get Smart!

By Ed Meyer

Below are three questions taken from quizzes in the Quantitative Problem Solving Course at Baldwin Wallace University. The course is PHY-102 and it is currently offered every Spring. Anyone can take to course because there are no prerequisites. Every year we get theater majors, political science majors, pre-law majors, business majors and a variety of others. Students that treat a difficult problem as an exciting opportunity to develop will do well. Students that treat a difficult problem as an unfair, unpleasant duty will not do well. I hope you take full advantage of these opportunities. If you are looking for more opportunities to develop, check out the Grand Challenges at [edmeyer.phd](http://edmeyer.phd).

You have a large number of 3-cent stamps and 11-cent stamps but have run out of every other denomination.

What is the highest postage (natural number of cents) that you can't make with any combination of 3 cent stamps and 11 cent stamps?



What is the highest product you can make by multiplying positive integers that sum to 100?



There are eleven bowls in a line. Each contains some marbles. Any set of three consecutive bowls contain a total of 54 marbles. The tenth bowl contains 17 marbles. How many are in the first bowl?



The solutions will be published in the next issue.

