

# LEARN, or DIE

By Drew Underwood

## Part One: Introduction

Benjamin Franklin created one of the most famous political cartoons: a snake, divided into sections—one for each colony—and the words, “JOIN, or DIE.” The message was clear—if the colonies did not unite, surely they would not be able to survive. They united. They survived. But now, the great Union is on the brink of her downfall; nations around the world are catching up with us in terms of strength and economics. Most noteworthy is China, a nation that has become the world’s fiercest economic competitor with the United States. However, history has taught us to be aware of the difference between the power that exists at any given moment and the sustainability of that power. Take, for example, the Soviet Union. No one can deny that the Soviets were a powerful nation, but they could not sustain their position of power. As a result, they collapsed, and we now speak of the Cold War as a victory for America and the west, as if it were destiny.

We face a similar situation with China, except that there is an important difference. China’s rise to power was not the result of marrying various former nations into one sovereign entity and a radical shift in government, as was done by the Soviet Union, but instead by rising to meet the competition. Essentially, China is stable economically, unlike the Soviets. They earned their position of power, and they aren’t going away any time soon. But why are other nations rising to meet America? Why is it that people across the world are saying that we will soon be a thing of the past?

No matter what opinion one may hold of him, it seems that Barry Goldwater saw this coming long ago. In *The Conscience of a Conservative*, he writes, “We have forgotten that society only progresses to the extent that it produces leaders that are capable of guiding and inspiring progress. And we cannot develop such leaders unless our standards of education are geared to excellence instead of mediocrity.” I think that it is a simple and acceptable idea—one that every educator will agree upon—to say that education is necessary for the survival of our form of government. If it is so unanimously accepted, why is it that we refuse to admit that our slipping education policies could be a factor in the decline of America on the global scene? It may simply be an issue of denial; our people are not ready to accept second place. But the reality is that TIMSS testing has shown that American high school graduates are *below* the global averages in science and mathematics for the countries that were tested. From a purely objective point of view, it is completely expected that if the most powerful nation performs so poorly, others will slowly but surely pass it. That’s exactly the position that America is in today, so maybe it’s time we admit the truth: our system of education is broken. We are falling in relation to other countries. If we don’t resolve this problem, we cannot expect to maintain our status as the world’s leading nation.

This is *not* an issue of funding. America is doing rather poorly in OECD’s Program for International Student Assessment (see Appendix A), despite the fact that we are spending more per student than the others, minus Switzerland (see Appendix B). Funding is not the problem. They say that practice makes perfect; but if you’re practicing

wrong, you'll be perfect at doing it wrong. The same is true for education. We can funnel in all the money we want, but we have to make sure that our system of education is set up correctly in the first place.

## **Part Two: A New Proposal**

Essentially, the main problem with modern education is that we forgot what our job is. We pay lip service to the idea of educating the students, but in the classroom we seem to be pursuing a different path. How does anyone improve at anything? They practice it, of course. So, to reach our goal of educating our students, we decided that they needed to practice. We give them homework, or practice problems. To be clear, homework is a good thing. Practice makes perfect. The problem is that some students didn't do their homework. This upset us, so we decided to require them to do it by making it part of their grades. Slowly, the homework itself has become the focal point of schooling in America. We *think* that we're doing what's best for the students through this method, and indeed our hearts are in the right place, but perhaps we are looking in the wrong direction.

As already confirmed, the purpose of homework, or any practice, is to get better at something—to improve. That's why, in any competitive profession, people practice. An Olympic athlete such as a gymnast might practice for hours in any given day. But when it comes time for them to compete, does their practice factor into their performance score? If, during practice, the gymnast breaks some sort of world record, this doesn't make their actual performance any better. On the other hand, if they fall down during practice, it doesn't make their actual performance any worse. We don't judge people by their ability to practice for a future situation—we judge them by how well they actually perform. If the gymnast never practiced at all, but they still performed amazingly well, they would win; if they practiced more than anyone in the world but still fell apart when it mattered, then they would lose. What sense does it make to evaluate students based on how well they practice—e.g. by doing homework—instead of how well they perform, especially when you consider that the whole point of practice is to improve the performance?

We seem to have this idea that homework can determine the value of a student's education, which is silly. It stems from a misunderstanding of effort itself. In American society, we tend to judge the moral character of others by how much effort they put out. "That man works hard to earn a living." "That boy studies hard to get his education." The problem with this is that we are focusing on the wrong part of the sentence. Why does the man work hard? *To earn a living*. Why does the boy study hard? *To get his education*. Effort, in itself, has no value. The value of effort comes from the result. Effort is a great thing, if it produces the intended result. But in our system of education, we seem to be claiming that the value of the result comes from the effort.

Consider three scenarios: (A) I dig a hole in the middle of a road to cause traffic problems. (B) I dig a hole in the middle of a desert for no reason. (C) I dig a hole in the middle of a yard to plant a tree. All three scenarios require the same amount of effort, because the action I am performing is the same task—that of digging a hole. However, each scenario has a different value, because the effort produces a different result. In scenario A, I have clearly done something bad, because the result of my effort is

negative. We don't say that it is good for me to dig a hole in the road simply because it requires a great deal of effort. In scenario B, what I have done is neither bad nor good—it's neutral, because there is no real result (although it did waste my time, which is bad, so we might say it is bad on those grounds). In scenario C, I have done something good; the result of my effort was positive. Put simply, the achievement gives effort its value. Without achievement, effort is worthless. Effort is simply a tool that we use to get something done—or rather, it is the act of using tools to get something done. Tools never have value in themselves; we give them value by the manner in which we use them. If we use effort to produce positive results, then it is good; if we use it to produce negative results, then it is bad.

In fact, the idea of maximizing effort is exactly the opposite of what we want to do in society. We have a word for achieving high results with little effort: efficiency. Efficiency is the ratio of benefits to costs. We want this to be as high as possible; we want to maximize the output while minimizing the input. In terms of education, we want to maximize learning while minimizing the effort used in doing so. If we have more efficiency, then we can do more with less—we can get the most out of what we have.

I have often said that our system of education should focus on getting results instead of standardizing our methods. I'm not sure why people think it's such a radical idea to pursue the desired result instead of worshipping a specific set of means. If you pursue effort, you will receive only effort. While effort is honorable and nice, it doesn't really mean anything unless it produces success. If you pursue accomplishment, you will receive accomplishment. It seems like a given that you should pursue the goal you have in mind, but it's a given that has been largely ignored by modern educators.

The role of the educator is to educate—to teach. The role of the student is to be educated—to learn. The bottom line is defined by a simple question: did the student learn the material, or not? So, when evaluating this question, is it better to measure the student's knowledge or the methods the student used to gain that knowledge? The former measures the result; the latter measures the means.

When thinking about it like this, it seems obvious that the best way to measure the success of a student is through evaluations such as tests, essays, project, presentations, etc. These are methods that directly measure the student's comprehension of the material instead of just measuring how hard they tried. Evaluations used to be the focal point of education, but now homework (i.e. practice) has taken over. Using homework as the basis for grading policy is essentially measuring practice. It's like measuring how hard a gymnast trains, or deciding the winner of a football game by how many hours each team spent training. It's outright wrong.

Consider another simple analogy: Billy has a job. It really doesn't matter what that job is; it could be as a factory worker, a salesman, or anything else. Now, let's say he works really, really hard. He's giving it his all, working sixty hours a week, every week. *But he doesn't actually complete the task he has been given.* Does it matter how hard he worked, if he doesn't get the job done? No. It sounds nice and warm and fuzzy to say, "All that matters is that you try your best," but in the real world, that's simply not true. What matters is that you get the job done. If you can do that with little effort, then more power to you! In fact, if you can complete your tasks with little effort, you will likely receive harder, more important, and more numerous tasks as time goes on, to maximize your potential. However, if you put in intense effort and receive no result, then you are

just wasting your time. Someone who provides great efficiency by maximizing the output and minimizing the input is an asset to the company they work for, to any groups they are in, and to society as a whole. Someone who uses more than they can provide is simply draining our resources, and is holding us back.

Apply the same thing to education. Currently, we focus on effort. If you don't put in the effort expected, you fail, regardless of the results you achieve. Similarly, a student can pass a class simply by doing all the homework; they don't necessarily have to learn the material. This limits the potential abilities of our students instead of maximizing them. If a student can complete a task with little effort, we actually punish them by holding them back to the methods that we worship. Isn't the problem with our system of education clear? We care more about how much work the student does than whether or not they are reaching the goal of learning. We say that if we focus on homework, then students will definitely learn—but the facts tell us the opposite. Yes, doing a great deal of homework will help some students, but we are punishing the rest by holding them back to that low standard. Students who are advanced and learn in different ways are punished because they are not allowed to fulfill their potential—they are forced to undergo the learning methods required by the under-performers.

As already stated, I fully support the idea of homework. I'm against *requiring* homework as part of the student's grade if they can learn the material without it. Encouraging students to work on practice problems is fine, but the fact is that not all students need that practice. For those who do, the textbooks and worksheets are capable of providing plenty of practice. For those who don't, it's a waste of time and thought to work on such problems. Ultimately, what matters is that the student learns the material, which, as I have already stressed, we measure through tests, essays, projects, presentations, etc. We already have these in our schools to measure the students' success, so why do we require homework as a grade in the first place? Well, they say it's because if it's not required then students won't do it. *That's exactly my point.* If a student doesn't need to do the problems, then they shouldn't have to. The practice is still readily available for students who need it, but it makes absolutely no sense to punish the ones who can reach the same or better results without being held back to the pace of others. Rather, students should be held accountable for not working to learn material that they fail to learn. If I earn 75% on a test, then I should be held accountable for failing to work hard enough to learn the other 25%.

My proposal is to eliminate the extreme weight that homework carries by making it a function of the student's scores on evaluations (again: tests, essays, project, presentations, etc.). Basically, the total points that homework is worth on the student's grade is the "normal" total points multiplied by the percentage the student *misses* on the evaluations. Students will then be held accountable for homework *to the extent that they fail to learn the material*. This way, there is still an incentive for students to put in the effort to reach a good result (if they don't, and then they fail, they are punished), but students who achieve high results with little effort are not punished. The formula is below:

$$\text{final grade} = 100 \left( \frac{\text{test points earned} + (\text{homework points earned})(1 - (\text{test points earned} / \text{test points possible}))}{\text{test points possible} + (\text{homework points possible})(1 - (\text{test points earned} / \text{test points possible}))} \right)$$

Let's say a teacher assigns 100 points of homework and a 100-point test. Now, I don't turn in any of that homework, but I still get a 95/100 on the test. Therefore, I *missed* 5% of the test questions (5/100). The homework was originally worth 100 points; multiple that by 5% and the homework is now worth 5 points *for that individual student*. I still didn't turn in any homework, so I receive 0/5 on my final homework grade. My total grade is the test and homework scores combined: 95/105 or 90.48%

But let's say I get an 80/100 (80%) on my original homework score, and a 75/100 on the test. That means I missed 25%, and 25% of 100 is 25. The percentage of homework points I received is the same as the percentage of my original score: 80%. 80% of 25 is 20, so the student gets a final homework score of 20/25. Add that to the 75/100 and the student's final grade is 95/125, or 76%.

With this method, homework helps the student if they do it, but students are not punished if they don't, as long as they learn the material. I feel that this is a reasonable compromise between my ideal (putting all the weight on evaluations) and the current model (heavy emphasis on homework and effort) by including a reward for students who do the homework while allowing students to learn in whichever way is best for them, as long as they reach the desired goal. See Appendix C for a chart showing this program in more detail, using various score combinations to show how it works.

### **Part Three: Answering the Critics**

What follows is a list of the most common attacks against this proposal and my responses to them. As I am proposing such a radical change in how we evaluate learning (well, actually, my proposal just takes us back to the older philosopher of "results over effort"), it is my responsibility to defend it against any opponent, and I fully intend to do so.

#### **1. Dropout rates will increase.**

A. The only reason why a student would drop out as a result of the shift to this new system would be because they are no longer receiving good grades. If that is the case, then it is because they are finally being held accountable for what they learn instead of how they try to learn it. Students will be provided with homework just as much as under the current system; it just won't be required if students can learn the material. Remember, tests—not homework—evaluate student knowledge. If students can't earn good grades by passing tests, turning in essays, or completing projects, then they simply are not learning the material. Grades, GPA, and class rankings mean absolutely nothing if they do not reflect the level of education the student has achieved. Therefore, this proposal does not change the way we teach or what we teach—it simply focuses the grading policy on whether or not the students actually learn. And that's the point of education, isn't it?

B. I contend that dropout rates will decline if we implement this new system. Under my plan, we will not force students to do work that they do not need to do, which increases the efficiency of education. If students can learn the same material without being required to undergo so much work, then they will be more inclined to stay in school.

## 2. Average GPA will decrease.

A. *Possibly*. As already stated: “Grades, GPA, and class rankings mean absolutely nothing if they do not reflect the level of education the student has achieved.” If we shift our grading system to actually reflect the students’ education, then our average GPA may appear to go down, even in relation to other districts and states. However, our system will be the only one that is truly accurate. Doing what is best for our students’ education is much more important than worrying about how our GPA compares to others, especially when the current GPA system doesn’t even mean anything. We don’t need to worry about having a higher average GPA than others who don’t even have an accurate GPA to begin with.

B. When we work to raise the average student’s GPA under the current system, we are not solving the problem—we’re just masking it. When GPA is based on effort instead of actual learning, it is not an accurate indicator of the educational level of our students. As long as this is the case, it is wrong for use GPA as a means for measuring the success of students. Consider a vital comparison... Profit is the purpose of a company in the same way that education is the purpose of a school. The company reaches these profits through the work (or effort) put in by its employees. So, it would be wrong for a company to say that it’s successful because its employees all work overtime on a regular basis. It would be equally wrong for anyone to claim that the company is failing because its employees work very little. Rather, the success of the company is determined purely by its ability to reach the desired goal—profit. If the hard working employees generated loss where profit was desired, the company will fail. If the lazy employees generated the intended profit, then the company will succeed. *The success of an institution is determined purely by whether or not the intended goals were achieved.* In the case of education, we are lying to the world when we claim that schools are or are not successful on the basis of how hard the students work. Rather, we should look to whether or not the schools are actually reaching the goal of educating students—and that means evaluating the knowledge of said students, not how hard they work to get that knowledge. Essentially, funneling money into an organization that lies to its investors (the public) about its success rates is a ponzi scheme, because the investors are not receiving the intended result—education.

C. Test scores will go up. Tests are the right way to evaluate knowledge; comparing test scores is the right way to compare knowledge. That’s why we have the ACT and SAT—so that colleges can look at whether or not the student actually learned the material. If we focus our grading policy on tests, and focus our education on making sure students learn the material that will be tested, then our test scores will increase. If you pursue effort, you will receive effort. If you pursue accomplishment, you will receive accomplishment. Therefore, our increased test scores will more than offset any doubts that people might have due to our lower GPA.

D. Because of the increase in test scores, it is equally possible that GPA will rise or stay the same. There are many students now who have GPAs that are lower than their test scores, because the GPAs do not reflect their actual abilities, and the corresponding rise

in their GPAs from the shift to this system will offset the fall of the GPAs of students who have higher GPAs than test scores.

### **3. This unfairly punishes under-performing students.**

A. This attack is simply not true. All that my proposal does is free the higher-performing students to fulfill their potential by not holding them back to the pace of the under-performers. Actually, the proposal would allow under-performers to do better. Currently, we have given them no incentive to learn, because our focus is on the effort instead of the result. If we give under-performers the incentive to actually learn, they will do so, and we will see a rise in the level of education of our students.

### **4. Some students won't do their homework anymore.**

A. To quote myself from Part Two: "*That's exactly my point.* If a student doesn't need to do the problems, then they shouldn't have to. The practice is still readily available for students who need it, but it makes absolutely no sense to punish the ones who can reach the same or better results without being held back to the pace of others."

B. Under this proposal, students are still held accountable for homework "*to the extent that they fail to learn the material.*" "[Students] should be held accountable for not working to learn material that they fail to learn. If I earn 75% on a test, then I should be held accountable for failing to work hard enough to learn the other 25%." The issue is that we should not hold students accountable for not doing homework that they simply do not need to do. It makes no sense to increase the amount of work they do when it doesn't necessarily increase the benefit of that work.

C. Each student is a unique individual. Individuals learn in different ways. It is silly to expect every student to learn in the same way, which is exactly what we do when we try to apply homework as a universal means of gaining knowledge.

D. A quiz is a type of test. A homework quiz can be used as the most direct method for teachers to hold students accountable for learning material that homework covers. If a teacher assigns homework, the next class the teacher can give them a homework quiz over the same material. Students who pass that quiz clearly learned the material; students who fail the quiz didn't. This way, students are directly held accountable for learning that specific material, because the quiz would be considered a test under my proposal, and therefore homework quizzes would be part of the student's test grade.

### **5. A single test can't show the students knowledge.**

A. Well, I haven't proposed a single test. This proposal is not about standardized testing—it's about where we place the most weight of the grades. Students take many tests throughout the year—unit tests, finals, quizzes, essays, projects, presentations, and so on. All of these combine to form the student's test grade, under this proposal.

## 6. Some students are bad test-takers.

A. Documented disabilities are one thing. We can always make allowances for students who have real, documented disabilities. We make things fair for them. But claiming to be a bad test taker is really just an excuse. Either you know the material or you don't. You're given a problem. You can either apply the knowledge you have and get the right answer, or you can get it wrong. But it's silly to say, "Well this is a test, so I'm bad at it. It's okay if I get it wrong." In reality, tests are just evaluations of your ability to retain and apply the knowledge you were supposed to learn. If you cannot retain and apply the knowledge when it matters, then it is as if you never learned it, because you can't ever use it. In the real world, there will be situations in which you will need to apply knowledge in situations that may be stressful, or have a lot on the line. Others will be watching and evaluating how well you do in those situations; tests are no different.

B. As already stated, this is just an excuse that some students use. The reason that tests are different than homework is because you can't just look up how to do the problems, open a textbook, get help from a teacher, etc. It's a *test*. Homework doesn't demonstrate whether or not you retained and applied the knowledge; it demonstrates that you can figure it out if you have resources to tell you how. Only evaluations can reflect whether or not you actually learned the material. Tests, therefore, are the best way to evaluate our students.

## Part Four: Conclusion

Regardless of how you feel about Senator Goldwater or his statement, the reality is that he was correct, at least in this case. Our Republic will only exist if we can educate our population so that we can compete with other countries. Right now, we aren't doing that. It's not because we aren't trying—I know that many educators sincerely believe that we're doing the best we can. But there is this sad acceptance going through our schools. Too many Americans simply aren't getting their education, and we say, "Well, that's just the way it is." We act like there is no room for improvement; as if this is the best system we can have. I am directly challenging that idea. There is always room for improvement.

We are in this rut because we lost track of the goal of education long ago. We care more about *how* a student does something than what they are actually doing, and the results of doing it. We need to shift our focus back to the education itself, and to generating positive results for the students, for the schools, and for society. We can only do that if we rethink our current methods, and I am confident that we have the moral dignity and motivation to do something bold—to stick to the old principle put so aptly by the Roman playwright, Plautus: "'He means well' means nothing unless he does well." We have good intentions as it is, but we can't expect them to become a reality by a coin tossed into a wishing well. We must take action, before it's too late.

We need a lesson from history. We may be united as a nation, but is unity enough? Can sheer confidence alone lead us to a brighter future? I think that it can, *if* we are willing to act on it. The choice seems clear:

LEARN, or DIE



## Appendix A: Poor Performance

From The Two Million Minutes Blog (<http://2mm.typepad.com/usa/>):

### An International Education Test

The Organization for Economic Cooperation and Development has released the results of its 2009 PISA (Program for International Student Assessment) test of 15-year-old students in 65 countries. In the Math and Science tests, all participating regions of China outperformed the United States.

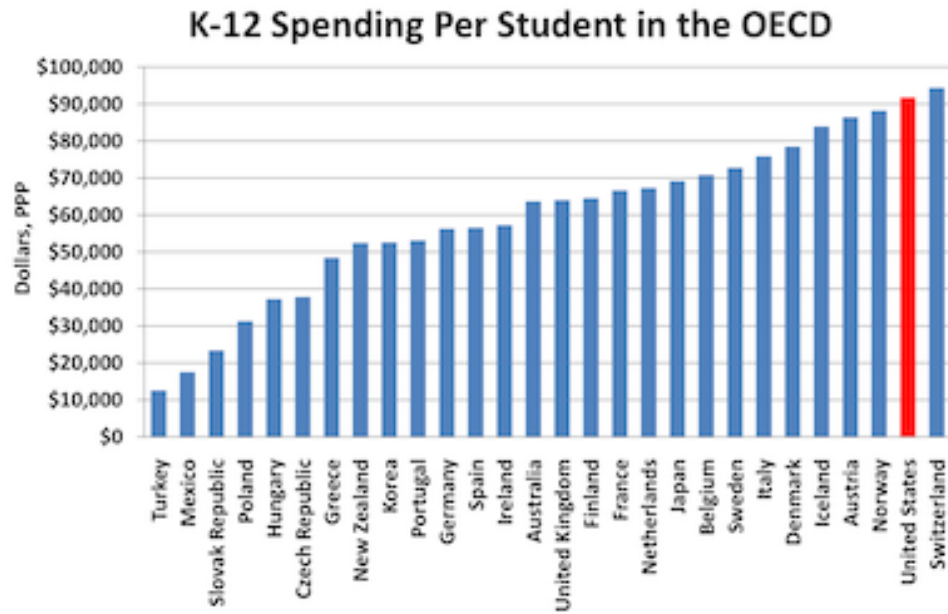
SCIENCE	PISA SCORE	READING	PISA SCORE	MATH	PISA SCORE
Shanghai, China*	575	Shanghai, China	556	Shanghai, China	600
Finland	554	Korea	539	Singapore	562
Hong Kong, China	549	Finland	536	Hong Kong, China	555
Singapore	542	Hong Kong, China	533	Korea	546
Japan	539	Singapore	526	Taiwan	543
Korea	538	Canada	524	Finland	541
New Zealand	532	New Zealand	521	Liechtenstein	536
Canada	529	Japan	520	Switzerland	534
Estonia	528	Australia	515	Japan	529
Australia	527	Netherlands	508	Canada	527
Netherlands	522	Belgium	506	Netherlands	526
Taiwan	520	Norway	503	Macao, China	525
Germany	520	Estonia	501	New Zealand	519
Liechtenstein	520	Switzerland	501	Belgium	515
Switzerland	517	Poland	500	Australia	514
Britain	514	Iceland	500	Germany	513
Slovenia	512	<b>United States</b>	<b>500</b>	Estonia	512
Macao, China	511	Liechtenstein	499	Iceland	507
Poland	508	Sweden	497	Denmark	503
Ireland	508	Germany	497	Slovenia	501
Belgium	507	Ireland	496	Norway	498
Hungary	503	France	496	France	497
<b>United States</b>	<b>502</b>	Taiwan	495	Slovakia	497
AVERAGE SCORE	501	Denmark	495	AVERAGE SCORE	497
Czech Republic	500	Britain	494	Austria	496
Norway	500	Hungary	494	Poland	495
Denmark	499	AVERAGE SCORE	494	Sweden	494
France	498	Portugal	489	Czech Republic	493
Iceland	496	Macao, China	487	Britain	492
Sweden	495	Italy	486	Hungary	490
Austria	494	Latvia	484	Luxembourg	489
Latvia	494	Slovenia	483	<b>United States</b>	<b>487</b>
Portugal	493	Greece	483	Ireland	487

\*In the study, China was represented by the city Shanghai and by the administrative regions Hong Kong and Macao.

Source: Organization for Economic Cooperation and Development

## Appendix B: Overspending

From Mercatus Center Senior Research Fellow Veronique de Rugy:



Source: OECD, 2009 *Education at a Glance*

Produced by: Veronique de Rugy, Mercatus Center at George Mason University

### Appendix C: New Proposal Data

HW Score	HW Total	Test Score	Test Total	Test %	New HW Score	New HW Total	Final Points	Final Total	Final %
0	100	100	100	100	0	0	100	100	100
25	100	100	100	100	0	0	100	100	100
50	100	100	100	100	0	0	100	100	100
75	100	100	100	100	0	0	100	100	100
100	100	100	100	100	0	0	100	100	100
0	100	75	100	75	0	25	75	125	60
25	100	75	100	75	6.25	25	81.25	125	65
50	100	75	100	75	12.5	25	87.5	125	70
75	100	75	100	75	18.75	25	93.75	125	75
100	100	75	100	75	25	25	100	125	80
0	100	50	100	50	0	50	50	150	33.33
25	100	50	100	50	12.5	50	62.5	150	41.67
50	100	50	100	50	25	50	75	150	50
75	100	50	100	50	37.5	50	87.5	150	58.33
100	100	50	100	50	50	50	100	150	66.67
0	100	25	100	25	0	75	25	175	14.29
25	100	25	100	25	18.75	75	43.75	175	25
50	100	25	100	25	37.5	75	62.5	175	35.71
75	100	25	100	25	56.25	75	81.25	175	46.43
100	100	25	100	25	75	75	100	175	57.14
0	100	0	100	0	0	100	0	200	0
25	100	0	100	0	25	100	25	200	12.5
50	100	0	100	0	50	100	50	200	25
75	100	0	100	0	75	100	75	200	37.5
100	100	0	100	0	100	100	100	200	50