

Name \_\_\_\_\_

## Are There Math People?

*A thinkLaw Math Lab*

### The Hug (Connell v. Tarala, Connecticut, 2011)

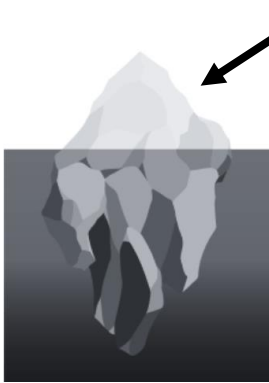
In 2011 Jennifer went to her nephew Sean's 8th birthday party. Sean ran to hug Jennifer. The two tumbled to the ground, and Jennifer broke her wrist.

Jennifer sued her 8-year-old nephew for \$127,000. Should she win? What's your gut reaction?

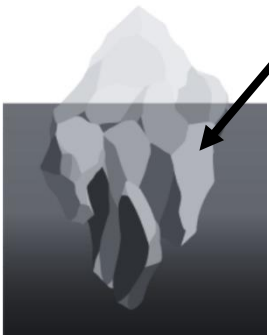
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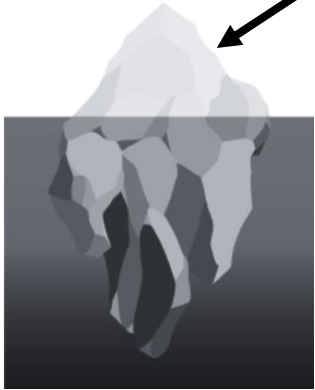


What was the issue?



What is the interest?

**I'm not a math person.**



What is the issue?

Minimum Wage is generally the lowest hourly wage that employers can pay their employees. In 2009, the federal government set the federal minimum wage requirement to \$7.25.

If an employee works 40 hours a week and is paid the minimum wage. How much would they earn at the end of the week?

Solve:

Take \$7.25 and multiply by 4 weeks to estimate, what would be their monthly salary?

Now take \$7.25 and multiply by 12 months. What would be the yearly salary?

Expense	Monthly Cost Estimate
Rent	
Utilities (electricity, gas, water, trash)	
Transportation (car payment, ride share, gas, insurance, bus pass)	
Food	
Entertainment	
Total	

How does your rough estimate of monthly expenses compare with the monthly salary of someone making the federal minimum wage?

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How many hours would you need to work to be able to afford these monthly expenses?

If there are 30 days in a month, how many hours a day would you have to work to total 345 at the end of the month?

Some people have to get a second job and even then, they are not earning enough to cover their monthly expenses. Another solution is to get a loan. There are a lot of businesses that are willing to loan you money if you need cash.

Walter was a father of four and worked as a trucker. Walter's business slowed down, and he was worried about being able to pay his heating bill. Walter saw a commercial for an internet loan company. People could go to the website and request to borrow up to \$1,000.

Walter borrowed \$500 to pay his bills. Walter agreed to repay \$500 plus an additional \$150 in fees, or \$650 in total. Every two weeks on payday, the loan company would take \$75 from Walter's bank account.

At that rate, how many payments would it take for Walter to pay back what he owed?

How many months is that?

One day, Walter received a notice that his bank account had been overdrawn. The loan company tried to take \$950 from Walter's account.

It turned out that the \$75 that Walter had been paying every two weeks were not payments towards the balance of the loan. They were "loan renewal fees." The company Walter borrowed the money from used a loan structure called "Delaware Model" loans. This is a type of loan agreement where a loan can be renewed without the borrower giving permission each additional time the loan was renewed.

This means that if you borrow \$500, the company might remove \$75 dollars a month from your bank account for a loan renewal fee until you pay off the loan.

If Walter had been making payments for 6 months, how many payments has he made?

How much money has he paid to the lending company?

The company that Walter borrowed from charged their borrowers interest rates of 600% or more. If Walter was charged 600% interest on his \$500 loan, he would have been charged \$3000 in interest.

What is the total amount Walter would have had to pay back?

If Walter continued to have \$75 taken out of his account how many payments would it take him to repay the loan?

How many months is that?

How many years is that?

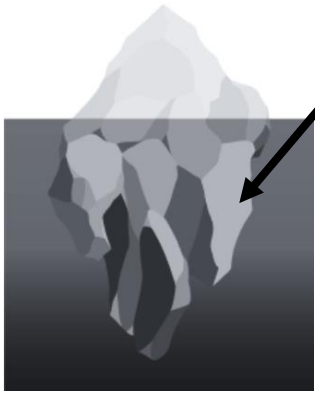
What serious consequences did Walter's misunderstanding of math have for him and his family?

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**Predatory loans**, when a lending practice is unfair or deceptive, are just one example where the math doesn't always math.



What is the interest?

How does math help us understand and navigate the world around us?

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What is one small change we could make to improve our mindsets?

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