

Adding and Subtracting Integers

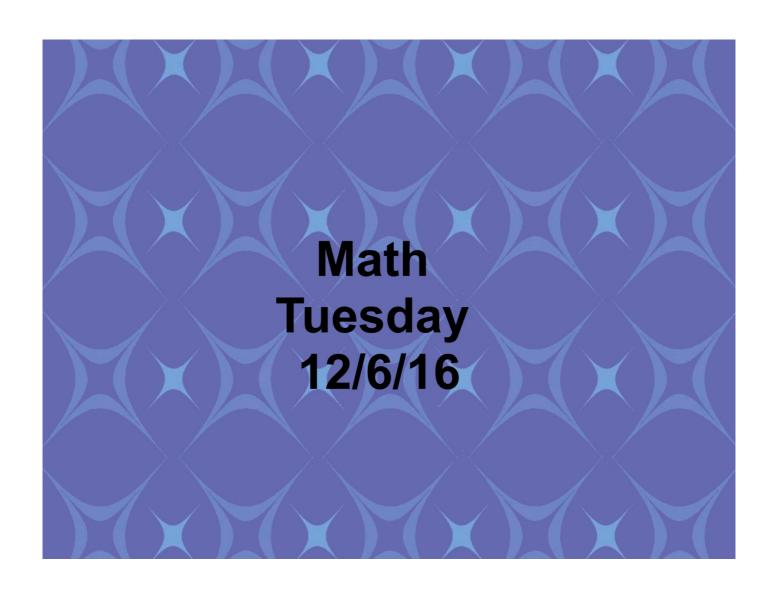
- What do you remember about adding and subtracting integers from last week?
 - Tools: counter chips and number lines
 - You have to take the sign into consideration. If the signs are the same, for instance if you have two positive numbers, you'll add them. If you have a positive and a negative, you'll find the difference between the two.



 https://www.khanacademy.org/math/arithmetic/ absolute-value/adding_subtracting_negatives/v/ adding-and-subtracting-negative-number-examples

Open your textbook to...

page 33 and do problems #8-28



Warm up!

On a sheet of paper, work with your neighbor to write out a set of rules for adding and subtracting integers.

- We will be taking notes, so you need your notebook!
- You know all about adding and subtracting integers, so how do you think that changes when you multiply and divide integers?

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• With Integers, two negatives make a positive.



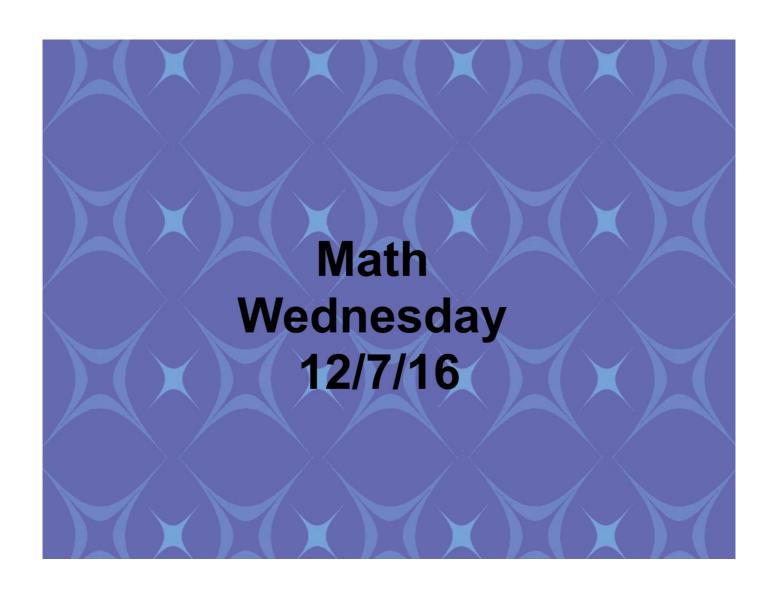


• https://www.khanacademy.org/math/arithmetic/absolute-value/mult_div_negatives/v/multiplying-positive-and-negative-numbers



Practice

Math Book pg 38 # 1-36



OHMYGOSH

You officially know all of the integer rules.

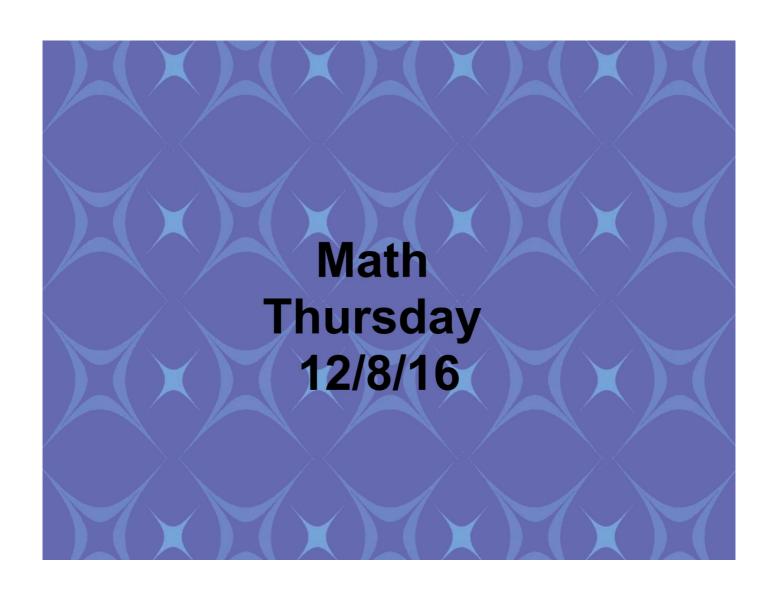
In a minute, you'll be split into 4 groups.

Each group will be making a poster about a set of integer rules that will be displayed in the classroom.

You will be able to use your notebook, and any other work that you think will be helpful.

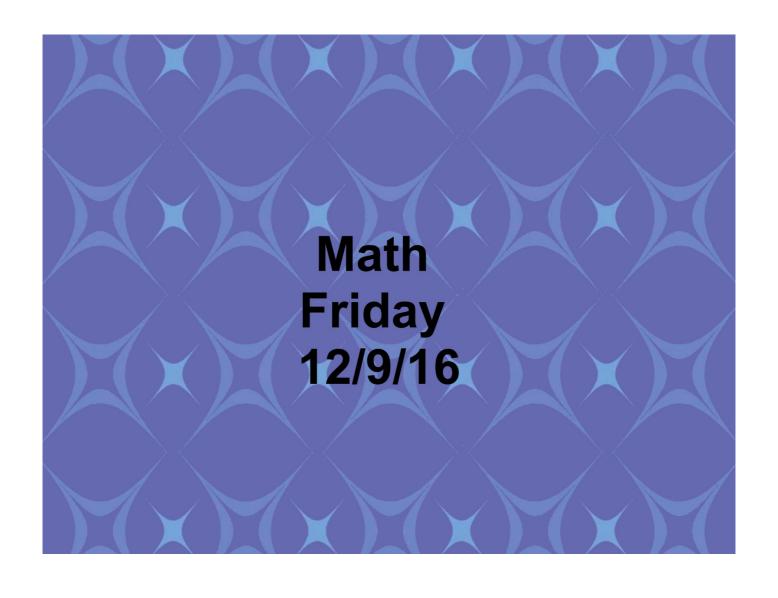
Your poster must include:

- written rules and steps
- o a step by step example
- o a picture
- o your names



Today!

We need to present the posters you made yesterday!

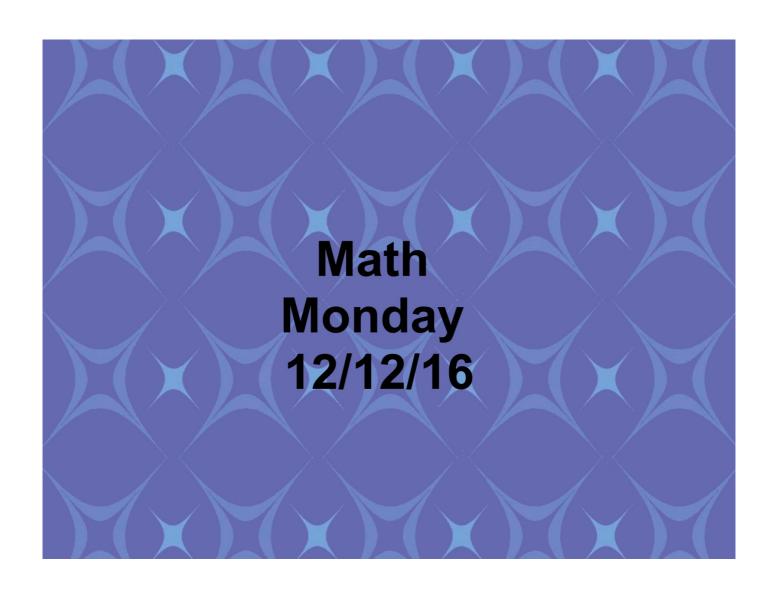


What You Remember

 Take 2 minutes to explain to your neighbor what you remember about multiplying and dividing fractions. You can talk about the processes, whats easy about it, or what you think is hard about it.

Practice

Today we will continue to practice your new skills.
In a moment, you'll receive some practice work.
You'll have some time to work on it, then we will go
over it, and work out some of the harder problems
together.



Today...

- We are going to play a game. You will need to get into your groups of 4, and sit around one or two tables. You will have 1 minute to move into your groups.
- In a moment, you'll receive a whiteboard, cloth, and marker.
- The team with the most points at the end wins.

 Katherine is very interested in cryogenics (the science of very low temperatures). With the help of her science teacher she is doing an experiment on the affect of low temperatures on bacteria. She cools one sample of bacteria to a temperature of -51°C and another to -76°C. What was the temperature difference in the two experiments?

 On Tuesday the mailman delivers 3 checks for \$5 each and 2 bills for \$2 each. If you had a starting balance of \$25, what is the ending balance?



You owe \$225 on your credit card. You make a \$55
payment and then purchase \$87 worth of clothes at
Macy's. What is the integer that represents the
balance owed on the credit card?



• If it is -25F in St Paul, Minnesota and it is 75F in Honolulu, Hawaii, what is the temperature difference between the two cities?

 During the football game, Justin caught three passes. One was for a touchdown and went 52 yards. The other was for a first down and was for 17 yards. The other was on a screen pass that did not work so well and ended up a gain of -10 yards. What was the total yardage gained by Justin on the pass plays?

 James plays in the backfield of the Big Town football team. Last week he ran four plays from the halfback position. He made "gains" measured in yards of 3, 4, 1, and 5. What were his average yards per gain? Round your answer to the nearest tenth of a yard.

• In golf, the average score a good player should be able to achieve is called "par." Par for a whole course is calculated by adding up the par scores for each hole. Scores in golf are often expressed at some number either greater than or less than par. Ms. Floop is having a pretty good day at the Megalopolis City Golf Club. Her score so far after 15 holes is -3. If par for 15 holes is 63, what is her score?



 It was a very freaky weather day. The temperature started out at 9°C in the morning and went to -13°C at noon. It stayed at that temperature for six hours and then rose 7°C. How far below the freezing point (0°C) was the temperature at 6 p.m.?

You run a paper delivery route. You received a \$22 check and 3 - \$14 checks from customers today.
 You also had to refund 1- \$5 bill. What is the total that you made today?



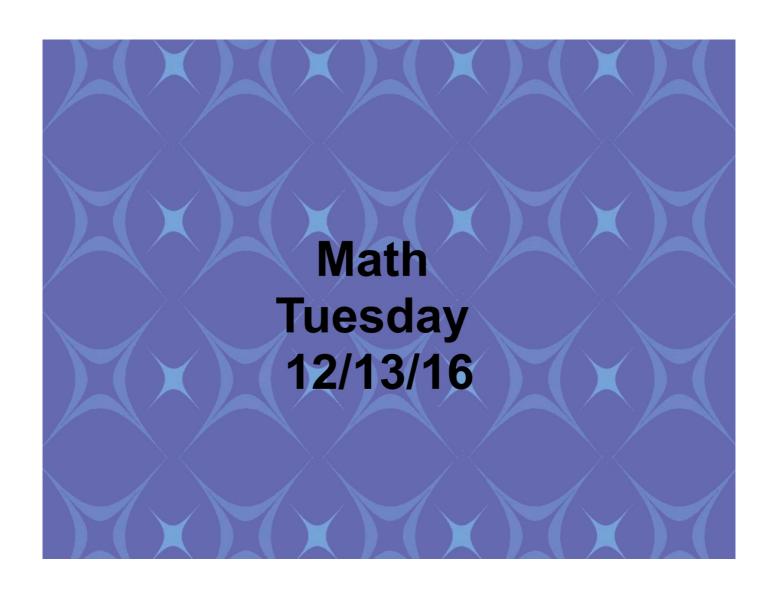
 A monkey sits on a limb that is 25 ft above the ground. He swings up 10 ft, climbs up 6 ft more then jumps down 13 ft. How far off the ground is the monkey now?



 Mary has \$267 in her checking account. She writes checks for \$33, \$65, and \$112. What is the balance in her account now?

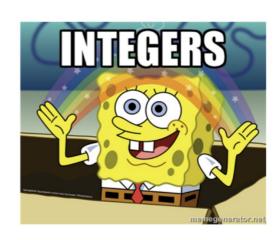
 A submarine dove 836 ft. It rose at a rate of 22 ft per minute. What was the depth of the submarine after 12 minutes?





Math

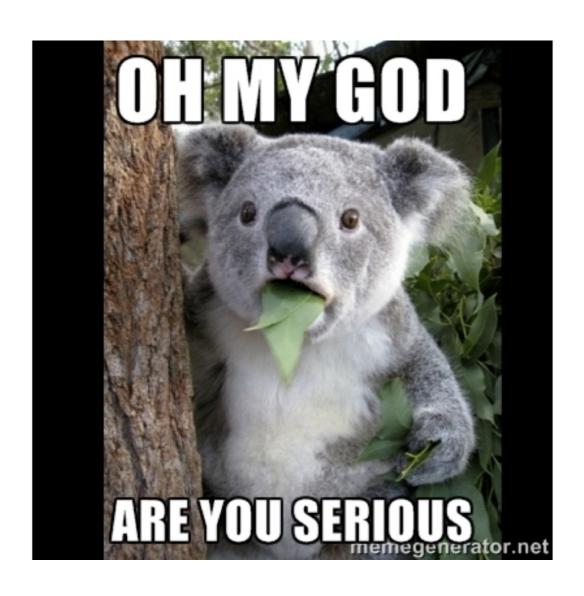
 Take a minute to talk to your neighbor about what you remember about integer rules.



By The Way...

- You'll have a test on Friday.
- In a moment, you'll receive a study guide. You have until Thursday to complete it. We'll go over it then, and you'll have one more night to study.





Adding and Subtracting Integers

- Recap on the rules:
 - Helpful tools include using a number line to work out problems, or modeling with counter chips.
 - It is important to look at the value of the two integers. Which one is bigger? Which one is worth the most, and which is farthest from zero?
 - If you have two negatives, you'll most likely be adding them together to get another negative number
 - if you have two positives, you're probably also going to add.
 - If you have one positive and one negative, you are probably going to be looking for the difference between the two!



....regarding Adding and Subtracting Integers?

Multiplying and Dividing Integers

- · Division and multiplication rules are the same
- · A negative divided by a negative is still positive
 - - x = +
 - or
 - -- ÷ -- = +
- · A negative divided by a positive is negative
 - - x + = -
 - or
 - - ÷ + = -
- · And a positive divided by a positive is still positive.
 - $+ \div + = +$
 - + X + = +

Multiplying and Dividing Integers

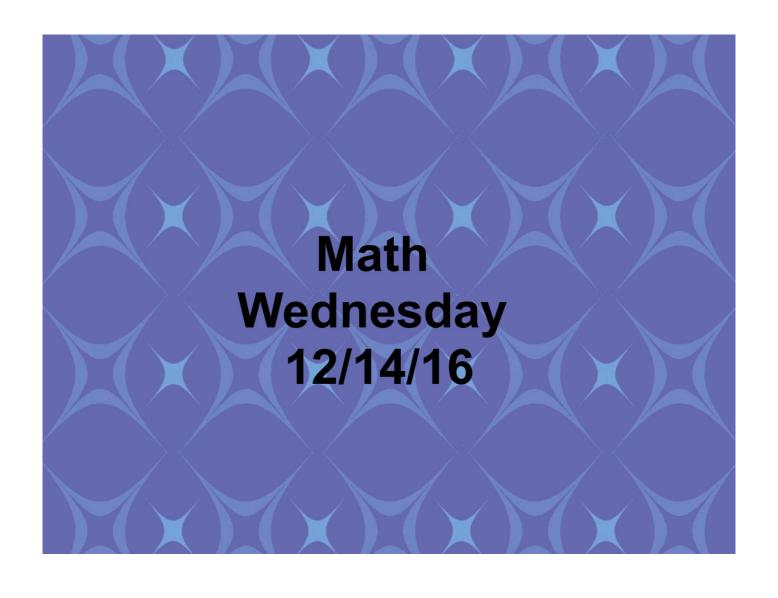
- ONE MORE THING!
 - Two wrongs make a right...BUT ONLY IN MATH
 - So if you have two negative signs right next to eachother, connect the dots because they equal a plus sign!
 - · like this!
 - -3 (-3) =



....regarding Multiplying and Dividing Integers?

•	In a second, you'll get some practice problems.
	You'll have about 5 minutes to work on them before
	we check the answers.

• Circle any numbers that you would like to see worked out on the board.



 Today we are going to play integer Jeopardy in preparation for your test tomorrow.



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