The Long March- Finding Mathematical Equivalences

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1. I will be able to teach 5th grade math intervention students about Mao Zedong's leading China's Communist Party (CCP) on the Long March in 1934. I will do this by requiring students to find mathematical equivalences between units of measure and capacity. This will be a fun and practical way to assess their ability to make measurement conversions. These are students who struggle to succeed in math and need remediation. Most students are in my classroom for 45 minutes daily.

   For this TIP I will share this lesson with the all the 5th grade math teachers, since this lesson meets a 5th grade indicator.

2. The seminar specifically taught about Mao Zedong, his rise to power in the CCP, and how he lead 100,000 people on the Long March. Telling this story will be interesting to my students and convey how measurement conversions can be applied to real life. This lesson will also emphasize how the Chinese (along with most countries) use the metric system and here in the United States we use the customary system.

3. The purpose of this lesson is to teach students about Mao's Long March in a mathematical context. While I tell the story and add detail, my students will have to make the measurement conversions required. Converting units of measure in this fashion will be provide good practice for my students and an interesting story they can tell others outside the classroom about.

   State of Ohio Mathematics Content Standards (5th Grade)
   Measurement Standard
   > 05. Make conversions within the same measurement system while performing computations.

4. Lesson Plan

Day 1
   1.) For homework the previous day I would assign students to find how many Kilometers are in one Mile, rounding to the nearest tenths place.
   2.) When students walk in I would check to see who has their homework completed. Then I would write on the board that 1 Mile = .6 Kilometers.
   3.) Hand students "The Long March- Finding Mathematical Equivalences" handout.
   4.) Post document to website, using the Smart Board display for entire class to see.
   5.) I will read this story aloud. I will pause when I come to a blank space. Students are to fill in the blanks. For my students I will allow them to use a calculator to speed up the assignment. To make more challenging, this assignment can be done without a calculator and administered as a test.
      > *The conversion of Miles to Kilometers has been placed at the top of student's papers because the standard only requires them to make conversions within the same system of measurement.*

6.) When finished collect for a grade. See answers below.

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Directions: Complete each space with the correct answer or mathematical equivalency. Round all answers to the nearest whole number unless otherwise stated.

1 Mile = .6 Kilometers

Have you ever thought running the Mile or _____yards was far? That is the

equivalent of _____ feet! Not only that, but sometimes there are local races that

participants run 5K which is _____ Meters or 10 K which is equivalent to

_____ Centimeters. Then there are others who like to run marathons. A marathon

is 42.2 Kilometers or _____ miles and to qualify for the Beijing Summer games in

2008 a male has to run that distance in 2 hours and 20 minutes!!!!! That's lightning fast.

Who cares about being fast??? I'm curious about long distances. Back in October of 1934,

which was _____years ago, there was a leader of China's Communist Party (CCP)

named Mao Zedong. The communists were fighting in a province called Jiangxi and were almost

annihilated. They narrowly escaped in a circling retreat to the west and north. Reports vary on how

far they walked. Some accounts say they walked 12, 500 Kilometers, which is _____

Miles. Others say they only walked 9656.064 Kilometers or _____ Miles. No matter

who's right, that's a long way! For example, I know that it is 2, 056 Miles or _____

Kilometers to Los Angeles, California from Cleveland, Ohio. So that would be the same as walking

to California, then walking back home, and finally going back to Los Angels, California. Now that's

a long March! That's exactly what this march was called in China, The Long March.

This Long March only lasted 5 x 74 _____ days. I know that is not the same

pace that they will be running the marathon in China this summer, but that is a long way to walk in

a little over a year's time.

Not only did they walk that far, but also the route they chose was not easy. Can you imagine walking to California through the Rocky Mountains or Sierra Nevada Mountains with no paths or roads? That's exactly what the people on this march did!

The Long March started off with 316², which equals _____ people. When rounded to the nearest 10 thousands place there were _____ people who began the Long March. All food and water had to be carried by humans or animals. On average humans eat 5 pounds of food each day or _____ ounces. Multiply that by the number of people that started the march. If the people then ate like we do on average, the would have needed to take _____ pounds or _____ ounces of food with them.

Now I'm sure walking all that way makes you thirsty. Water would be a necessity for a trip like this. Good nutrition states that humans should drink 8 cups of water a day, which is _____ ounces. Knowing this march through the Mountains and barren lands was difficult for those in the China's Communist Party, I am sure they needed at least this much water. If everyone needed 8 cups of water per day, times that by the number of people on the Long March and you'll see that _____ cups of water was needed daily. That is equivalent to _____ gallons.

By the end of the Long March only 40 x 2,500 / 20 + 2, 000 = _____ people were left. That is an incredible journey, to say the least. Even though less that 1/10 of the people that started off completed the Long March

Answers

Homework Question Answer- 1 mile = 0.6 KM (rounded to the nearest tenths place)

"The Long March- Finding Mathematical Equivalences" Answers

1. 1,760 yards
2. 5,280 feet
3. 5,000 meters
4. 1,000,000 centimeters
5. 26.2 miles
6. 74 years
7. 7, 767 miles
8. 6,000 miles
9. 370 days
10. 99,856 people
11. 100,000 people
12. 80 ounces
13. 500,000 pounds
14. 8,000,000 ounces
15. 64 ounces
16. 800,000 cups
17. 50,000 gallons
18. 7,000 people

5. References

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