

# Fun Martian Math



## **Teachers Information:**

The students will use logic and math to answer some unusual questions.

## **Materials:**

- copies of 3-page activity
- calculators (optional)
- pens/pencils

## **Procedure:**

- Give each student a copy of the 3-page activity packet
- Look over the fun problems and decide if you need to work with the students as a class, in groups, in pairs or individually (for great entertainment, you can model doing the problems with your own statistics).
- Instruct the students to exchange papers after the activity and have fellow students check their work.



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## **Problem One: How much would you weigh on Mars?**

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Well, you need to know how much you weigh on Earth. Then you multiply that by .39 -- that is your answer. (If you can't multiply by decimals, just divide your weight by 3 to find the approximate answer.)

Example: Nathan weighs 96 pounds on Earth. If he multiplies his weight by 0.39 he discovers that he would weight 37.4 pounds on Mars. If he does it the easier way and divides by 3, he would find that he weighs approximately 32 pounds on Mars.

So how much you would weigh on Mars?

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## **Problem Two: How old are you on Mars?**

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We need to have birthdays figured out for the trip!

You can do it. One Mars year equals 687 Earth days. First, figure out how old you are in Earth days. You do that by taking your age and multiplying it by 365. It will be a big number. Then you divide by 687. Shouldn't you be in kindergarten or something?

Example: Poor Nathan. He is nine years old. Nine times 365 equals 3285. He is a smart kid though and does not want to forget the leap year days since his last birthday. If we add those we get 3562. Now divide that by 687. He is only five!

So how old are you on Mars?

## **Problem Three: How many meals will you eat on the way to Mars?**

This one is as easy as pie. Assume that you left on January 1, 2017. You arrive on October 1, 2017 right after breakfast. You are healthy and never skip a meal; that makes three meals a day you eat. Now it's time to figure out how many meals you need to pack for your journey.

So how many meals will you eat on the way to Mars?

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## **Problem Four: Brain drain cool cruel math:**

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Time to call home! Write a short conversation that you would have with someone at home as you call from Mars. Remember, you haven't seen or talked to anyone on Earth in a very long time.

Now, how long would it take to chat it up? Well, when the Mars Rover went up, it took about 10 minutes for the radio signal to travel between Mars and Earth. So, you say "Hi!" and wait 10 minutes for your Earthling friend to hear your greeting. Then you'll wait another 10 minutes to hear what your friend says! How long will your conversation take if you were able to say 15 phrases to \_\_\_\_\_ and they were able to say 15 phrases total back to you.

So how long will it take you to chat with \_\_\_\_\_?

