

MARTIAN MATH

Objective

Upon completion of this activity, students will be able to:

- apply math skills to understand time Martian life.

Instructional Time

45 minutes

Materials

“Martian Math” Student Worksheet

Pencils/Pen

Procedure

1. Explain to the students that time on Mars will be different than on Earth.
A day will be forty minutes longer and a year will be twice as long.
2. Pass out the worksheet for students to complete.
3. Answer will vary, so have students check their math.

Student Name _____ Date _____

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DIRECTIONS. Complete the following math problems. There are only 4 problems, how tough can it be?

PROBLEM 1: HOW MUCH WOULD YOU WEIGH ON MARS?

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's weight 96 pounds on Earth. If he multiplies his weight by .39 he discovers that he would weigh 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.

Now, calculate how much you would weigh. We need to know for your suit.

PROBLEM 2: HOW OLD ARE YOU ON MARS?

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 3288. Now divide that by 687. He is only four and three-fourths!

So how old are you on Mars?

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PROBLEM THREE: HOW MANY MEALS DID YOU EAT ON THE WAYS TO MARS?

This one is as easy as pie.

Assume that you left on January 1, 2000. You arrive on October 1, 2000 right after breakfast. You are healthy and never skip a meal; that makes three meals a day. Figure out the number of days and multiply by...

PROBLEM FOUR: BRAIN DRAIN COOL CRUEL MATH.

Time to call home! Write a short conversation that you would have with someone at home as you call from Mars. Write it in the space below.

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?