Earth's Journey Through Space (cont.)

How Fast Are You Traveling?

As we sit on this third rock from the Sun, which we call Earth, we feel no motion. For that reason, long ago when people watched the Sun, moon, and stars move in the sky, it looked like they were all traveling east to west around the Earth. Today, we know that only the moon travels around the Earth; the daily motion of the Sun and stars is caused by Earth's rotation around its axis once every 24 hours. The gradual change of the sun's position, as well as that of the constellations, is due to Earth's 365-day trip around the Sun.

Review the data used in the bulletin board display of Earth's Journey Through Space to find the total speed of our planet as it makes this journey.

Data of Earth's Speed

1. Earth rotates once around its axis every 24 hours. The Earth's circumference at the equator is 25,035 miles (40,056 k). If we divide that distance by 24 hours, we discover that a person standing at the equator would be traveling at about 1,043 miles per hour (1,669 kph).
2. As the Earth is spinning, it also moves around the Sun. This trip takes about 365 days, moving at a speed of 66,660 mph (106,560 kph).
3. Our solar system consists of the Earth and eight other planets in orbit around the sun. The solar system is traveling toward the star Vega at 43,200 mph (69,120 kph).
4. The solar system and Vega are located in the spiral Milky Way Galaxy near the outer edge. This galaxy looks like a pinwheel rotating at 489,600 mph (783,360 kph).
5. It was discovered in the 1920s that our Milky Way Galaxy was not the only one in the universe. The Milky Way Galaxy is falling toward the great Andromeda Galaxy at 180,000 mph (288,000 kph). The oval shaped Andromeda Galaxy is part of the Local Group of galaxies.
6. The Local Group of galaxies is being pulled toward the constellation Virgo. Virgo is located in the Local Supercluster of galaxies. The Local Group is moving at a rate of 540,000 mph (864,000 kph).

Calculating Earth's Speed

1. Earth rotates around its axis at 1,043 mph
2. Earth revolves around the sun at _____
3. Our Solar System travels toward Vega at _____
4. The Solar System moves around the Milky Way Galaxy at _____
5. The Milky Way Galaxy falls toward Andromeda at _____
6. The Local Group is pulled toward the Local Supercluster at _____

Earth is traveling at _____

Finally, the Universe is made up the Local Group, as well as other galaxies and quasars. Scientists are not sure if the Universe is rotating. If it is there would be more speed added. So, as you sit there, as still as possible, are you really motionless?

Two Moons of Mars

Fill in the numbers 1 through 9 so that each equation is correct. Use each number only once.

P	+	I	÷	D	= 8
+		÷		X	
H	+	O	X	E	= 12
—		—		—	
B	÷	S	+	M	= 9
= 2		= 5		= 4	

Match the letter in each box to the code below to reveal the names of the two moons of Mars.

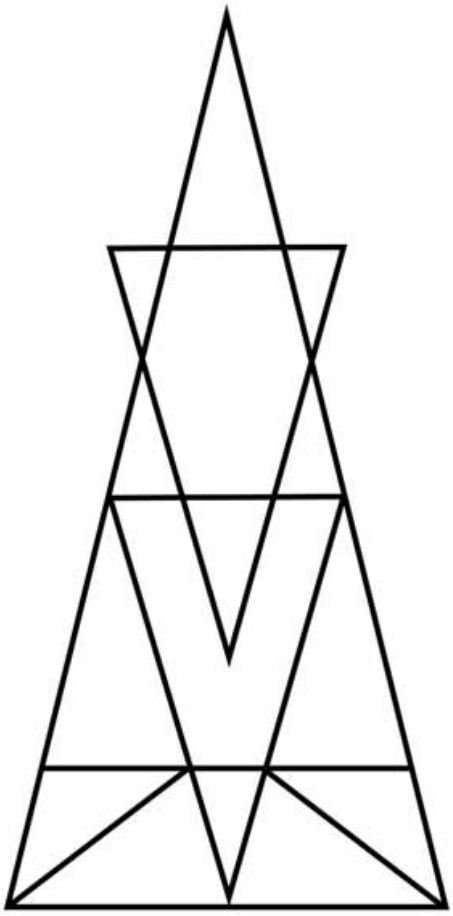
4	7	1	9	1	3

2	5	8	6	1	3

☆☆

How Many Triangles?

How many triangles are in the drawing below?



There are _____ triangles.

Triangles provide strength and stability and are often used in the design of buildings, launchpads, and other structures.

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