**Cool Facts**. For each “cool fact” below, write the large number in scientific notation in the answer column to the right.

More Working With LARGE Numbers

2015



|  |  |  |
| --- | --- | --- |
| 1. The average person’s scalp has 100,000 hairs. (Mr. P is NOT average!) |  | 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 2. Humans blink once every 6 seconds, or 250,000,000 times in their lifetime. |  | 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 3. There are an estimated 250,000,000,000 stars in the galaxy. |  | 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 4. Judge Judy makes 25 million dollars a year. |  | 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 5. Supreme Court Justice Ruth Bader Ginsberg made ≈ $190,000/year. |  | 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 6. Each day 20,000,000 meteorides enter the atmosphere. |  | 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 7. An area of the sun’s surface the size of a postage stamp shines with the power  of 1.5 million candles. |  | 7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Remember: The U.S. population is ≈ 329 million and the world population is ≈ 7.3 billion** | | |
| 8. The average American goes to the restroom 6 times a day. How many times a day is a restroom used in the U.S.? Express the number in scientific notation and standard form. |  | 8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 9. There are 53 Lego bricks made for every person born in the world. How many Lego bricks have been made? Express the number in scientific notation and standard form. |  | 9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Oil Consumption**

Oil consumption for seven countries in 1989 is listed below. Complete the chart by writing the oil consumption

for each country in standard notation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country** | **Barrels of oil consumed** | **Barrels consumed in standard notation** | **Gallons of oil consumed** | **Gallons consumed in scientific notation** |
| Britain | 6.34 x 108 |  |  |  |
| Canada | 6.431 x 108 |  |  |  |
| France | 6.774 x 108 |  |  |  |
| West Germany | 8.351 x 108 |  |  |  |
| Italy | 7.081 x 108 |  |  |  |
| Japan | 1.818 x 109 |  |  |  |
| United States | 6.324 x 109 |  |  |  |

A barrel of oil holds 42 gallons. For each country listed, calculate the oil consumption in gallons.

Express that number in standard form and fill in that column of the table.

Now, complete the final column of the table by writing the gallons consumed by each country in scientific notation.

**The Environment – Oil, Pollution, Recycling**

**Raising the fuel-economy standards for SUV’s and other light trucks to that of cars would save 1 million barrels of oil a day.**

If a barrel holds 42 gallons, how many gallons of oil would be saved each day by raising fuel-economy standards?

How many gallons could be saved in a year? Express the number in scientific notation and standard form.

**The World Bank reported in 2002 that pollution caused 2.42 billion dollars worth of damage to the Egyptian environment annually.**

Express that number in standard form, then in scientific notation.



**Forests are being cut a rate of 100 acres per minute to produce paper.**

According to this statistic, how many acres of trees are being cut each day? Each year?

Express each of those numbers in scientific notation.

**Recycling 14 trees worth of paper reduces air pollutants by 165,142 tons.**

How many pounds is this? In Scientific Notation:

**Almost every hour, nearly 250,000 plastic bottles are dumped.**

How many plastic bottles are dumped each day? Per year? Express the answers in scientific notation and standard form.

**The United States is one of the world’s largest producers of trash. Trash is produced at a rate of 1,609 pounds of trash per person, per year.**

What is the total amount of trash produced in the United States each year? Express the number in scientific notation and standard form.

**The Real Vitamin “C” – Chocolate**

**The annual worldwide cocoa production is 3 million tons.**

How many pounds is this? In scientific notation:

**The current global market value of the worldwide cocoa crop is $5.1 billion.**

Express the total cocoa value in scientific notation and standard form.

**According to the World Atlas of Chocolate, Americans consumed 3 billion pounds of chocolate in 2001, resulting in $13.1 billion in sales.**

Express the number of pounds of chocolate consumed in the U.S. in 2001 in standard form and scientific notation.

Express the sales of chocolate consumed in the U.S. in 2001 in standard form and scientific notation.

**Hershey’s Chocolate Company manufactures 2.0 x 107 Hershey’s Kisses each day.**

Express this number of Kisses in standard notation.

If Hershey’s manufactures Hershey’s kisses 260 days a year, how many Kisses do they make a year? Express the answer in standard form and scientific notation.

**The other Vitamin “C” – Coffee**

**In 1999, there were 108,000,000 coffee consumers in the U.S.**

Write the number of U.S. coffee consumers in scientific notation.