**Put away your phones and calculators please**

1. If Christmas 2018 was on a Tuesday, why was Christmas 2019 on a Wednesday?

What day of the week was Christmas 2020?

What day of the week will be…?

Christmas 2021?

Christmas 2022?

Christmas 2023?

Christmas 2024?

Christmas 2025?

2. What day of the week will it be 100 days from now?

3. **About** how many minutes have you been alive?

4. Americans throw out enough plastic utensils in a year to circle the equator 300 times. (No Calculators or devices)

 (a) Assuming this is true, find the number of plastic utensils each American throws out per year.

(b) Is this a true statement? Explain and defend your answer.

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1. If Christmas 2018 was on a Tuesday, why was Christmas 2019 on a Wednesday?

There are 365 days in a calendar year. 365/7 = 52 weeks + 1 day.  *If a calendar year were 364 days, every date would fall on the same day of the week.* Every four years is a leap year and an additional day is added on Feb. 29. When a leap day is between two corresponding dates, you have to add two weekdays.

**What day of the week was Christmas 2020?** Friday, (Leap Year)

**What day of the week will be…?**

Christmas 2021? Saturday

Christmas 2022? Sunday

Christmas 2023? Monday

Christmas 2024? Wednesday, (Leap Year)

Christmas 2025? Thursday

*Years divisible by 100 do not have a Leap Day, unless they are also divisible by 400. 1900 did not have a Leap Day, 2000 did, and 2100 will not. Babies born on Feb. 29 1896 were called 8-Year Babies, since they did not see their first birthday until 1904.*

2. What day of the week will it be 100 days from now?

Divide 100 by 7, and get 14 with a 2 remainder. 14 full weeks from now is still Monday, and 2 more days makes it a Wednesday.

3. About how many minutes have you been alive?

There are 525,600 minutes in a year. That is ½ million per year, plus another 100,000 for every 4 years. If you are 20, that is 10 million plus another 500,000

4. Americans throw out enough plastic utensils in a year to circle the equator 300 times.

 (a) Assuming this is true, find the number of plastic utensils each American throws out per year.

I assumed that a utensil is 6 inches long (2 per foot). The Earth’s circumference is about 25,000 miles, 5280 feet = 1 mile, and there are about 300,000,000 Americans.

(25,000 miles)(5280 ft/mile)(300 times)(2 utensils/ft) 80 billion utensils per year.

(80,000,000,000 utensils)/(300,000,000 Americans)  260 utensils per American per year.

(b) Is this a true statement? Explain and defend your answer.

While I might not use 260 plastic utensils, a lot of people use more than 260 per year. Since people normally pick up three at a time (knife, fork, and spoon) regardless if they plan to use all three, there is a lot of waste. *Worldcentric.org estimates 40 billion plastic utensils are used every year in just the United States. The majority of these are thrown out after just one use.* My calculation is about 80 billion which is twice this estimate. I think a case can be made for both claims.



**Without getting into a big gun debate…**

Is this a true statement? Sadly, Yes Between Jan. 1, 2018 and May 18, 2018:

Total: 26 students killed in school shootings.

Benton, Ky., Jan. 23, 2018: 2 students killed

Parkland, Fla., Feb. 14, 2018: 14 students killed

Birmingham, Ala., March 7, 2018: 1 student killed

Great Mills, Md., March 20, 2018: 1 student killed

Santa Fe, Texas, May 18, 2018: 8 students killed

Total: 13 service members were killed in combat zones.

There have been five deadly incidents in **Operation Inherent Resolve**.

Jan. 8, Feb. 19, March 7, March 15, and March 30. Each of these incidents resulted in one American service member’s death, except for the one on March 15, in which seven airmen died in the crash of an HH-60 Pave Hawk helicopter in western Iraq. There have been two deaths this year in **Operation Freedom’s Sentinel**. They occurred on Jan. 1 and April 30.

What is the author trying to imply?

That it is more dangerous to attend school than be in the military.

Errors in the logic?

1. Relative risk. There are 50 million school kids and 1.3 million active duty service men and women. Relatively few of those 1.3 million are in a war zone. There are 38 times more school children than active duty service men and women.

2. Picking and choosing the comparison dates. By only using the first half of 2018, the numbers look bad for schoolchildren; however, if 2000 to present or 2010 to present numbers were compared, the number of service deaths would far outpace the number of school shooting deaths.