

MATHCOUNTS® Problem of the Week Archive

Veterans Day – November 12, 2018

Problems & Solutions

In celebration of Veterans Day, here are a few problems based on data obtained from the U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates.

In the United States in 2017, there were an estimated 251,047,650 adult civilians (persons 18 years of age and older not currently enlisted in the U.S. military). If 18,204,605 of those individuals were veterans, what percentage of the adult civilian population of the United States did veterans account for in 2017? Express your answer to the nearest hundredth.

In 2017, veterans accounted for $18,204,605/251,047,650 \approx 0.0725 = 7.25\%$ of the civilian population of the United States.

The U.S. Census Bureau also reported that 8.1% of those veterans in the U.S. in 2017 were veterans of the Korean War and 3.4% were veterans of World War II. What is the absolute difference between the numbers of U.S. veterans of the Korean War and WWII that year? Express your answer to the nearest whole number.

In 2017, the number of veterans of the Korean War was 8.1% of 18,204,605, or $18,204,605(0.081) = 1,474,573$, and the number of veterans of WWII was 3.4% of 18,204,605, or $18,204,605(0.034) \approx 618,957$. The absolute difference between the numbers of U.S. veterans of the Korean War and WWII in 2017 was $1,474,573 - 618,957 = 855,616$.

If approximately 91.1% of the veterans in the United States in 2017 were men, how many women veterans were in the United States in 2017? Express your answer to the nearest whole number.

Since 91.1% of the veterans in the United States in 2017 were men, it follows that the other $100 - 91.1 = 8.9\%$ were women. The total number of veterans in the United States in 2017 was 18,204,605, so that means there were $18,204,605(0.089) \approx 1,620,210$ women veterans in the United States in 2017.

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