

Sum up the News – December 7th - 2015

Vocabulary

1. To solve a system of linear equations through elimination, the _____ of one of the variables in the two equations must be opposites.

- A. coefficients
- B. constants
- C. exponents
- D. intercepts

2. The area of any _____ can be calculated by multiplying the two diagonals together and then dividing by 2.

- A. hexagon
- B. kite
- C. rectangle
- D. trapezoid

3. Exterior angles of a polygon have an average measure of X° . How many sides does the polygon have?

- A. $\frac{180}{180 - X}$
- B. $\frac{180}{X}$
- C. $\frac{360}{180 - X}$
- D. $\frac{360}{X}$

Based on the article “Earth is wilder, wetter, hotter since 1997 Kyoto climate deal” on page A1 of the Monday, November 30th, Seattle Times.

4. Since 1997, when the world’s population was just 5.9 billion, carbon dioxide emissions from the burning of fossil fuels have increased by 50%. By 2013, with 1.2 billion more people on the planet, carbon dioxide emissions reached 100 million tons per day. By what percentage has the average carbon dioxide emission per person increased since 1997?

- A. 15%
- B. 25%
- C. 30%
- D. 50%

5. Though many industrialized countries have begun to reduce their use of fossil fuels for energy, the increased use of coal and the spread of personal automobiles in developing nations has helped carbon dioxide emissions keep growing. On average, approximately how many pounds of carbon dioxide emissions is each person responsible for every day?

- A. 30 pounds
- B. 40 pounds
- C. 60 pounds
- D. 70 pounds

6. The Western Antarctic Ice Sheet and the Greenland Ice Sheet will significantly raise global sea levels if they continue to melt. These two ice sheets are the largest ones in the world and each cover hundreds of thousands of square miles. Between them they have lost 5.5 trillion tons of ice. If 1 cubic foot of ice weighs approximately 57 pounds, how many cubic miles of ice have the sheets lost? (1 mile = 5280 feet)

- A. 700 cubic miles of ice
- B. 1,300 cubic miles of ice
- C. 1,800 cubic miles of ice
- D. 2,100 cubic miles of ice

7. Around the world, glaciers have lost an average of 39 feet of ice thickness due to melting since 1997. Over the same time period there has been a 2.5-inch increase in sea level. The Earth is roughly a sphere with a radius of 3,959 miles and 71% of its surface is covered by oceans. How many cubic miles of liquid water have been added to the oceans since 1997? (Surface area of a sphere = $4\pi * \text{radius}^2$)

- A. 1,400 cubic miles
- B. 1,800 cubic miles
- C. 3,800 cubic miles
- D. 5,500 cubic miles

Based on the article “State looks at college-savings plan option” on page B2 of the Sunday, December 6th, Seattle Times.

8. The GET program currently has \$27 billion invested, enough to cover 140% of its expected tuition obligations in the decades to come. While 8,669 of its account holders have requested refunds, that represents just a small portion of the 130,000 accounts. What is the expected average amount that the program will have to pay for tuition for its account holders?

- A. \$130,000
- B. \$160,000
- C. \$180,000
- D. \$210,000

9. The program has returned \$63 million to account holders that requested refunds. Of the 8,669 refund requests to the program, only 2,845 of them have been processed. How much more money will be returned to the other savers whose refund requests have not yet been processed?

- A. \$98 million
- B. \$117 million
- C. \$165 million
- D. \$192 million

10. University of Washington tuition is currently about \$11,800 and is scheduled to decrease by 15% over the next two years. Historically, tuition at the school has increased exponentially by an average annual rate of 8.6%. If after the 2017-2018 school year, tuition begins to increase again at its historical rate, what will it be for the 2025-2026 school year?

- A. \$17,600
- B. \$18,100
- C. \$19,400
- D. \$20,200

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