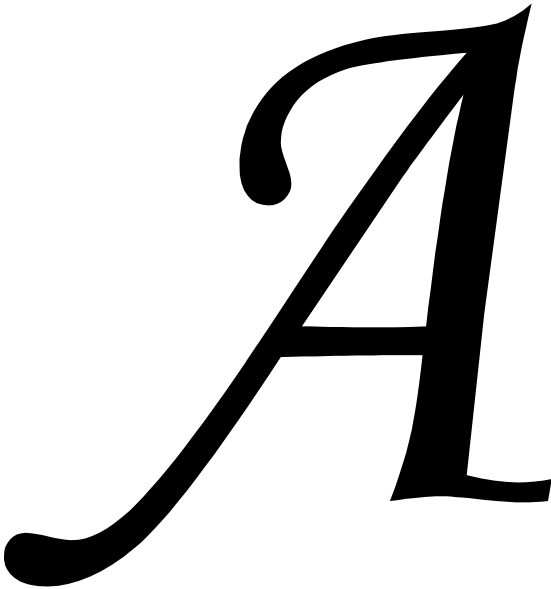


REMT 2004

ANSWERS



ARITHMETICAL

ANALYSIS

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

LAST NAME

FIRST NAME

GRADE

Be sure to write each of your answers on the answer sheet.

1. If we begin adding the positive integers consecutively, $1 + 2 + 3 + \dots$, and we stop when our sum is greater than or equal to 2004, what was the last integer we added?
2. A girl has \$2.73 in pennies, nickels, dimes, quarters, and half-dollars. If she has an equal number of coins of each kind, how many coins does she have?
3. If it is 10 a.m. now, what time will it be in 2004 hours?
4. An aquarium of volume V has a square base with length and width $\sqrt[3]{\frac{2V}{5}}$ and height $\sqrt[3]{\frac{25V}{4}}$.
In lowest terms, what is the ratio of the height to the width?
5. If the number 150 is increased by 40%, and if that result is then decreased by 40%, what is the final result?

6. When a certain positive number is added to its square, the result is 56. What is that number?

7. What is the exact value, expressed as a fraction in lowest terms, of $\frac{2}{3} - \frac{4}{5} + \frac{6}{7}$?

8. What is the exact value, expressed as a fraction in lowest terms, of $3\frac{3}{4} \div 5\frac{1}{4}$?

9. What is the exact value of $\sqrt{7\frac{9}{16}}$?

10. How many days, hours, minutes, and seconds is 1,000,000 seconds? Your number of hours must be less than 24, and your number of minutes and seconds must be less than 60.

