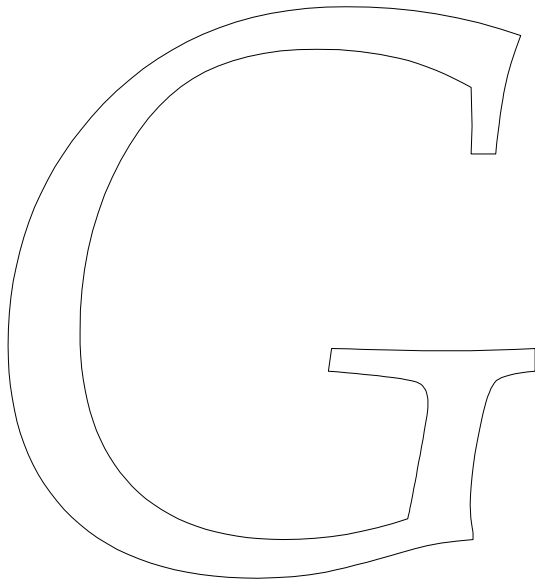


REMT 2007

ANSWERS



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

MATHEMATICAL

REASONING

LAST NAME

FIRST NAME

GRADE

1. What is the largest six-digit perfect cube?
2. What is the largest prime factor of 322,344?
3. A 12 ounce package of grass seed will create a 500 square foot lawn. How many square feet of lawn can be grown from a 30 ounce package of the same seed?
4. There is a double feature showing at the movies. The first film begins at 5:25 and lasts one hour and fifty minutes. Then there is a twenty minute intermission. The second film lasts two hours and forty minutes. What time does the second film end?
5. I bought a TV set on sale for \$420, which was 40% off its original price. What was its original price?

11. How many interior diagonals can be drawn in a regular 13-sided polygon?

12. I have to create a password to protect some computer files. The password must consist of a sequence of two letters followed by three digits. How many possible passwords are there?

13. As a bonus for signing up with U-Tunes, you get to choose any three of this week's top ten songs to download for free. In how many ways can you make this selection?

14. My favorite restaurant has a choice of three different salads, five different main dishes, and four desserts. How many distinct three-course meals are there on the menu?

15. A certain redwood tree grew to 60% of its current height in its first century of life. In its second century it increased its height by $\frac{1}{3}$. Since then it has added another 50 feet to its stature. How many feet tall is this redwood tree today?