

***REMT 2003***

***ANSWERS***



***ARITHMETICAL***

***ANALYSIS***

1. 2420
2. 0.6
3. 141
4. 26
5. 45
6. 33
7.  $71/105$
8.  $52/15$
9.  $5/7$
10.  $11/4$
11. \$76
12. 9:37
13. 35
14. 113
15.  $2880/49$  or 587.7551

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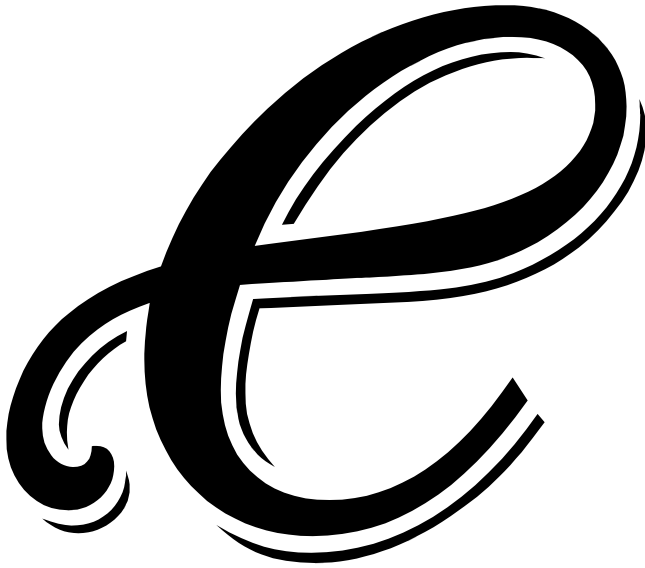
***CALCULATIONAL***

***COMPUTATION***

1. 19900
2. 141
3. 19
4.  $2^{28}$  or 268435456
5. 350
6.  $3/2$  or 1.5
7.  $23/2$  or 11.5
8.  $(5+6a)/(a-1)$
9.  $(x-5)/(x+7)$
10.  $1/(x-1)$
11. \$76
12. 9:37
13.  $2880/49$  or 587.7551
14.  $25/3$  or  $8.\bar{3}$
15. 6 hours

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**MATHEMATICAL**

**MANIPULATION**

1. 19900
2. 60100
3. 100500
4.  $2^{28}$  or 268435456
5. 30
6.  $(5+6a)/(a-1)$
7.  $(x-5)/(x+7)$
8.  $1/(x-1)$
9.  $\sin(x)$
10.  $25/3$  or  $8.\bar{3}$
11.  $(x-3)/(-5)$  or  $(3-x)/5$  or  
...
12.  $\sqrt{3}$
13. 14
14. 64
15. 3

**REMT 2003**

**ANSWERS**



**SHAPES**

**AND SIZES**

- |     |                    |     |                         |
|-----|--------------------|-----|-------------------------|
| 1.  | parallelogram      | 13. | 105                     |
| 2.  | isosceles triangle | 14. | 16                      |
| 3.  | right triangle     | 15. | 15                      |
| 4.  | octagon            | 16. | 9.4                     |
| 5.  | pentagon           | 17. | 7.1                     |
| 6.  | trapezoid          | 18. | 10                      |
| 7.  | cylinder           | 19. | 27                      |
| 8.  | pyramid            | 20. | 100                     |
| 9.  | torus              | 21. | 120                     |
| 10. | parabola           | 22. | $10/8$ or $5/4$ or 1.25 |
| 11. | hypotenuse         | 23. | $10/4$ or $5/2$ or 2.5  |
| 12. | radius             | 24. | 3:2                     |

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**GEOMETRICAL**

**GEMS**

1. 9.4
2. 3400
3. 4:1 or  $4/1$  or 4
4. 900
5. 2:5 or  $2/5$
6. 5
7.  $2 + \frac{\pi}{2}$  or  $\frac{4 + \pi}{2}$
8. 30
9.  $15\sqrt{2/3}$  or  $5\sqrt{6}$
10. 61 or  $\sqrt{3721}$
11. 7:4
12.  $p^2 / (3 + 2\sqrt{2})$  or  $p^2 (3 - 2\sqrt{2})$

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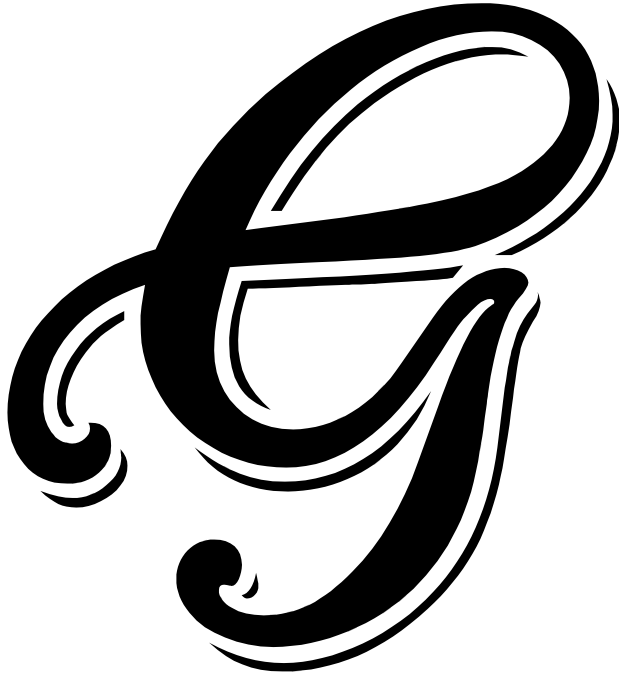
***MATHEMATICAL***

***THOUGHT***

1. 19600
2. 168
3. 60
4. 90
5.  $\sqrt{11}$
6. 2
7. 42
8. 10
9. 49
10.  $\frac{4}{37}$
11.  $6!$  or 720
12.  $\frac{3}{32}$
13.  $\frac{3}{7}$
14. 19
15. 8

***REMT 2003***

***ANSWERS***



***MATHEMATICAL***

***REASONING***

- |     |                |
|-----|----------------|
| 1.  | 4              |
| 2.  | 42             |
| 3.  | 10             |
| 4.  | 49             |
| 5.  | $\frac{4}{37}$ |
| 6.  | 1260           |
| 7.  | $\frac{5}{16}$ |
| 8.  | $\frac{3}{7}$  |
| 9.  | $\sqrt{5}$     |
| 10. | 20             |
| 11. | 15             |
| 12. | 22             |
| 13. | 10             |
| 14. | $\frac{1}{2}$  |
| 15. | 8              |

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***MATHEMATICAL***

***LOGISTICS***

1. 302400
2.  $5/16$
3.  $3/7$
4.  $\sqrt{5}$
5. 22
6. 6
7.  $1/2$
8. 15
9. 36
10. 198
11. 300
12. 6
13. -2
14. 6
15. 8