**2015 Chiles Mini Mu Mental Math**

\_\_\_\_\_\_ 1. -36= ?

\_\_\_\_\_\_ 2. If  what is ?

\_\_\_\_\_\_ 3. What is the ordinate of the x-intercept of the line ?

\_\_\_\_\_\_ 4. Find the volume of a sphere (in terms of ) inscribed within a cube of height 6.

\_\_\_\_\_\_ 5. Find the LCD of 24 and 36.

\_\_\_\_\_\_ 6. Florida has a 7.5% tax on poison apples. What is the tax on a poison apple that costs $1200?

\_\_\_\_\_\_ 7. 272= ?

\_\_\_\_\_\_ 8. Answer as a decimal rounded to the nearest hundredth: 

\_\_\_\_\_\_ 9. 

\_\_\_\_\_\_ 10. The sides of a right triangle are all integer values. If the longest leg of the triangle has length 20, what is the length of the hypotenuse?

\_\_\_\_\_\_ 11. 9 x 37 + 9 x 13 = ?

\_\_\_\_\_\_ 12. What is one third of three eighths of one sixteenth of 256?

\_\_\_\_\_\_ 13. Find the complement of the supplement of a 128 angle

\_\_\_\_\_\_ 14. 56987 + 20648

\_\_\_\_\_\_ 15. Give the prime factorization of 222.

\_\_\_\_\_\_ 16.  Express your answer as a fraction in simplest form.

\_\_\_\_\_\_ 17. What is the largest solution for y:



\_\_\_\_\_\_ 18. If the average of x, 36, 37, 38, and 39 is equal to exactly 36, then x is equal to what?

\_\_\_\_\_\_ 19. What is 40% of 75?

\_\_\_\_\_\_ 20. If tickets to the new Star Wars movie sell for $5.75 each, then how much will it cost in dollars for 40 people to go?

\_\_\_\_\_\_ 21. What is the hundredths digit of ?

\_\_\_\_\_\_ 22. What is the length of the diagonal of a cube with side length 3?

\_\_\_\_\_\_ 23. What is the volume of a cone with base diameter 4 and height of 7? Express your answer as a fraction in terms of .

\_\_\_\_\_\_ 24. If there are four thingamagibs in seven thingamabobs, how many thingamagibs are in 63 thingamabobs?

\_\_\_\_\_\_ 25. Find the median of 3, 4, 5, 6, 5, 7, 8, and 9.

\_\_\_\_\_\_ 26. What is the abscissa of the midpoint of the line that passes through (7, -2) and (9,)?

\_\_\_\_\_\_ 27. Simplify: 

\_\_\_\_\_\_ 28. 0! = ?

\_\_\_\_\_\_ 29. Solve: -6n > 24 – 2n

\_\_\_\_\_\_ 30. What is the sum of the first 7 prime numbers?

\_\_\_\_\_\_ 31. Given the system of equations



What is x?

\_\_\_\_\_\_ 32. Express .875 as a fraction in simplest terms.

\_\_\_\_\_\_ 33. Find the volume of a cube with a surface area of 384.

\_\_\_\_\_\_ 34. 12 + 12 + 15 + 2 x 0 + 15 = ?

\_\_\_\_\_\_ 35. Find the remainder of 34871905 divided by 11.

\_\_\_\_\_\_ 36. .05 x .7 = ? Express your answer as a decimal.

\_\_\_\_\_\_37. Simplify 

\_\_\_\_\_\_ 38. Solve for x: 

\_\_\_\_\_\_ 39. 

\_\_\_\_\_\_ 40. 181 x 11 = ?

**CHILES 2015 MINI MU**

**MENTAL MATH TEST**

**ANSWERS**

1) -729

2) 4

3) 0

4) 36

5) 72

6) 90 or $90

7) 729

8) 10.33

9) -100

10) 25

11) 450

12) 2

13) 38

14) 77635

15) 2 • 3 • 37

16) 

17) -2

18) 30

19) 30

20) 230 or $230

21) 8

22) or 

23) 

24) 36

25) 5.5 or 

26) 8

27) 16

28) 1

29) n < -6

30) 58

31) 8

32) 

33) 512

34) 54

35) 2

36) .035

37) 4

38) 4

39) 54

40) 1991

**Solutions:**

1. (-1)(3)(3)(3)(3)(3)(3) = -729
2. a = 2, b = 3

= 

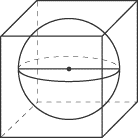
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= 4

1. Ordinate = y-coordinate of a point in a two dimensional coordinate

The y-coordinate of the x-intercept is always 0.

1. Height of cube = 6

Radius of cube = 6/2 = 3 Volume of sphere =  = = = 36

1. The lowest common denominator of 24 and 36 is 72.

24 x 3 = 72

36 x 2 = 72

1. .075 = 

 x 1200 = 90

1. 27 x 27 = 729
2.  =  = 10.33