CIE-USA/DFW

Math Comp 2011

Grade 5

30 questions

Time: One Hour

Note:

- Make sure to write all your answers on the answer sheet. Only the answer sheet will be graded.
- Each question only has one correct answer.
- Print your name clearly and legibly below.

Name _____

Code _____

Room _____

Time End _____

1. $(22 + 33 + 44 + 55 + 66 + 77 + 88 + 99) \div 11 =$ ___.

A. 43 B. 44 C. 55 D. 52 E. 45

2. Of the following, which is divisible by 6?

A. 166 B. 266 C. 366 D. 466 E. 566

3. $6 \times 8 \times 24 = 36 \times$ ___.

A. 32 B. 35 C. 30 D. 40 E. 28

4. I threw 12 coins into the air. If 3 times as many coins landed heads up as landed tails up, how many coins landed heads up?

A. 10 B. 4 C. 8 D. 3 E. 9

5. If a giraffe's neck grows 6 *cm* every 15 days. It takes __ days for its neck to grow 42 *cm* .

A. 85 B. 90 C. 100 D. 105 E. 110

6. $(13\times 5) + (13\times 8) + (13\times 12) = 13\times$ __.

A. 20 B. 25 C. 60 D. 40 E. 17

7. I was wandering around the house at 12 hours and 24 minutes before noon. I was wandering around at ___.

A. 11:36 am B. 11:36 pm C. 12:24 pm D. 12:24 am E. 11:24 pm

8. (perimeter of my square) ÷(sum of 3 side-lengths of my square) = ___ .

A. 8 B. 4 C. $\frac{3}{4}$ D. $\frac{4}{3}$ E. 2

9. Pete paid for 5 identical frozen pizzas with a $20 bill. If he got $5.50 in change, how much did one frozen pizza cost?

A. $2.50 B. $2.60 C. $2.90 D. $2.95 E. $3.50

10. Tom is 15 years old. What's the average of his age 3 years ago and his age 5 years ago?

A. 19 B. 16 C. 14 D. 17 E. 11

11. The number 2011 is a 4-digit number. What is the difference of the least 4 digit number and the greatest 2- digit number?

A. 1 B. 901 C. 1099 D. 199 E. 9900

12. Three million equals ___.

A. 3000 ×10000 B. 30 ×10000 C. 30000 ×10 D. 3000 ×1000 E. 300 ×1000

13. The school meeting is on the 199^{th} days of the calendar year, in __.

A. May B. June C. July D. August E. September

14. I multiplied 111,111×111,111 , and wrote down the product. The largest digit of this product was

A. 3 B. 4 C. 5 D. 6 E. 7

15. The sum of a number and twice of it is 84. What's half this number?

A. 14 B. 15 C. 12 D. 16 E. 28

16. Marry got either 80 or 90 on each of her 6 math tests. The average of all her math tests is 85. How many 90s did she get?

A. 2 B. 1 C. 5 D. 3 E. 4

17. The sum of 5 consecutive whole numbers is 2010. What is the sum of all the digits of these 5 numbers?

A. 28 B. 29 C. 32 D. 31 E. 30

18. In the division143143143002 ÷13 , the remainder is ____.

A. 5 B. 1 C. 2 D. 3 E. 4

19. The sum of 2 positive numbers is greater than their product if one of the numbers is _.

A. 2 B. 1 C. 3 D. 5 E. 4

20. What is the average of the mean and median in the set of numbers 2, 1, 7, 8, 1, 1, 10, 6, and 9?

A. 5.5 B. 6 C. 6.5 D. 8 E. 9.5

21. $\{A, B, C, D, E\} \cup \{C, D, E, F\}$ has x number of elements, then x^3 = __ ?

A.9 B. 6 C. 216 D. 729 E. 512

22. How many integers are there between the number 2 and 30 that are relatively prime to 6?

A. 11 B. 17 C. less than 10 D. 19 E. 10

23. How many 3-digit numbers are divisible simultaneously by 8, 12, and 15?

A. 6 B. 10 C.7 D. 9 E. 8

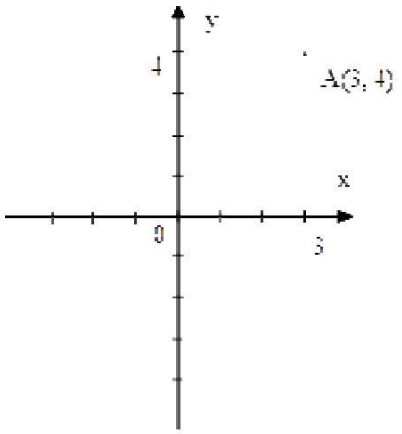
24. a is 3 times as large as b ; b is 8 less than c ; and the difference of a and c is 16; then the sum of a , b , and c is __ .

A. 48 B. 56 C. 68 D. 72 E. 60

25. Find the 10^{th} term in the sequence $-2, -4, -8, -16, \ldots\ldots$

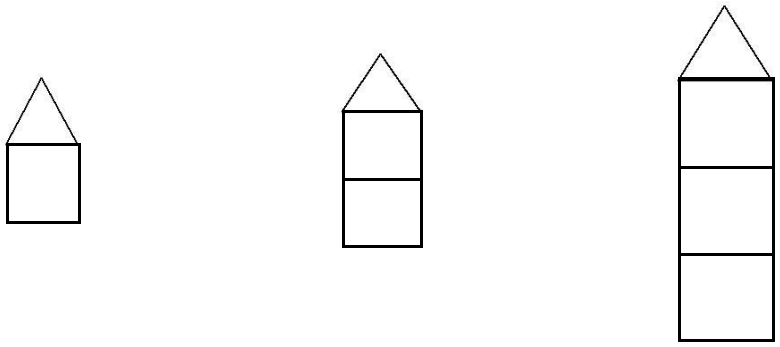
A. −256 B. −1024 C. −512 D.1024 E. 512

26. The point $A(3, 4)$ is reflected over the x -axis to B ; and then B is reflected over the y -axis to C . What's the area of the triangle ABC ?



A. 24 B. 30 C. 12 D. 48 E. 36

27. It takes 6 toothpicks to build the 1^{st} figure, and 9 toothpicks to build the 2^{nd} one. Also, each toothpick is 1 *cm* long. What's the perimeter of 9^{th} figure?

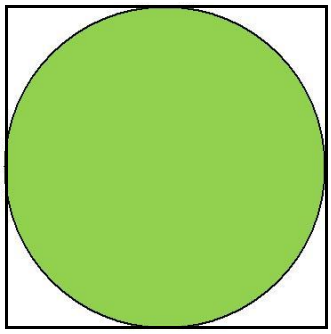


A. 28 B.30 C. 32 D. 36 E. 38

28. The last digit [units digit] of $2^{2011} + 2011^2$ is ___.

A. 3 B. 5 C. 7 D. 9 E. 8

29. If the side length of the square is 20 m , what's $\frac{1}{4}$ the area of the circle?



A. $100\pi\ m^2$ B. $75\pi\ m^2$ C. $50\pi\ m^2$ D. $400\pi\ m^2$ E. $25\pi\ m^2$

30. Simplify: $2x - \{7 - 2[x - 3(4 + x)]\}$

A. $4x + 24$ B. $4x - 31$ C. $-2x - 31$ D. $6x + 31$ E. $4x - 24$

TIE BREAKER QUESTIONS:

31. At most ___ circles of radius 1 with non-overlapping interiors can fit inside a square with side-length 4.

A. 1 B. 4 C. 5 D. 3 E. 16

32. Here is a sequence of numbers: $-37, -30, -23, \ldots$; what's the smallest positive term of this sequence?

A. 1 B. 2 C. 3 D. 4 E. 5