

**CIE 2016 Math Comp Math Fun
Answer Key**

Name: _____ **ID:** _____ **Grade:** 03
Room: _____ **Start Time:** _____ **Finish Time:** _____

No.	Answer
1	C
2	A
3	D
4	D
5	C
6	A
7	D
8	C
9	C
10	A
11	C
12	A
13	A
14	C
15	C
16	C
17	A
18	D
19	A
20	D
21	C
22	B
23	D
24	B
25	C

No.	Answer
26	C
27	B
28	C
29	C
30	B
31	D
32	B
33	
34	
35	
36	
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CIE-USA/DFW

Math Competition 2016

Grade 3

30 questions

45 minutes

Notes:

1. Make sure to write all your answers on the answer sheet. Only the answer sheet will be graded.
2. Each question carries the same weight. If you get stuck on one question, move on and work on the easier problems first.
3. Bonus questions will be counted only when there is a tie using common questions.

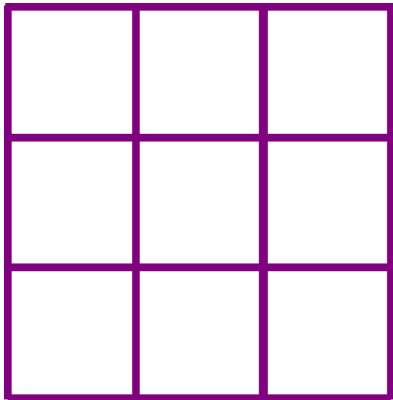
Name (Please print) _____

Room (Please print) _____

9. John has a stamp album. Each page has 9 rows of 8 stamps. He has stamps in 3 whole rows and one-half of the fourth row. How many more stamps can be put on that page?

- A. 40 B. 20 C. 44 D. 72

10. How many total squares are here?



- A. 14 B. 13 C. 10 D. 9

11. There are 10 red socks and 10 black socks in a drawer. If David picks socks without looking, how many socks does he need to pick in order to be sure of getting at least one of each color?

- A. 2 B. 10 C. 11 D. 20

12. Kathy found a book, which was missing of certain number of sheets. When she opened the book she saw number 10 on the left side and number 21 on the right side. How many sheets between those sides were missing?

- A. 5 B. 10 C. 11 D. 20

13. There were 155 bulbs in a box. 11 of them are broken. The rest were packed into boxes of 16 bulbs each. How many boxes of unbroken bulbs were packed?

- A. 9 B. 10 C. 11 D. 12

14. In a trunk there are 8 chests, in each chest there are 7 boxes, and in each box there are 6 gold coins. The trunk, the chests, and the boxes are locked. At least how many locks need to be opened in order to take out 50 coins?

- A. 10 B. 11 C. 12 D. 13

15. Lili is facing north. If she turns counterclockwise 225 degrees, she will be facing what direction?

- A. northeast B. northwest C. southeast D. southwest

16. How many fifths are there in $7 + \frac{4}{5}$?

- A. 37 B. 38 C. 39 D. 40

17. What is the sum of $0.37 + 0.96 + 1.08 + 1.305 + 7.13$?

- A. 10.845 B. 11.6 C. 9.375 D. 10.425

18. Complete the pattern.

1, 4, 9, 16, __ , 36

- A. 35 B. 30 C. 26 D. 25

19. Sam was 39 years old 5 years ago. This year, Sam's son is $\frac{1}{4}$ of his age. How old is his son?

- A. 11 B. 12 C. 13 D. 14

20. Simplify the fraction $\frac{1001}{39}$.

- A. $\frac{333}{13}$ B. $\frac{334}{13}$ C. $\frac{335}{13}$ D. $\frac{77}{3}$

21. What is the 213th multiple of 37?

- A. 7668 B. 7844 C. 7881 D. 8001

22. Tommy wants to buy a bicycle. The original price is \$240, but it is now being offered at 45% off. How much will Tommy save if he buys it during the sale?

- A. 132 B. 108 C. 100 D. 96

23. A regular polygon is a polygon that is equilateral (all sides are the same length) and equiangular (all angles have the same measure). What is the interior angle measure of one angle in a regular octagon?

- A. 90 B. 108 C. 120 D. 135

24. Alice is choosing what classes she wants to take. She has 3 classes she has to pick and 10 classes to choose from. How many ways can she choose 3 different classes?

- A. 108 B. 120 C. 135 D. 144

25. Alex has a cube with a side length of 3. He paints the cube red on the outside, and then cuts the cube into 27 cubes with side lengths of 1. How many cubes have at least one red face?

- A. 13 B. 14 C. 26 D. 27

26. Joshua has a rectangular garden that he wants to fence in. In order to do so, he buys 20 fence posts and spaces them equally around the garden. If the space between each fence post is 4 feet, what is the maximum area his garden takes up?

- A. 300 B. 350 C. 400 D. 450

27. Bob draws a giant circle surrounding his square house such that each corner of the house touches the circle. If the area of his house is 100 square feet, what is the area of the circle?

- A. 25 pi B. 50 pi C. 100 pi D. 200 pi

28. What is the sum of the mean and the median of the following set of numbers

{1, 3, 5, 6, 7, 8, 9, 21}?

- A. 12 B. 13 C. 14 D. 15

29. When three numbers are added in pairs, the resulting sums are 10, 11, and 13. What is the largest of the three numbers?

- A. 4 B. 6 C. 7 D. 8

30. Ethan bought a bag of 180 marbles. He gave half of his marbles to Ron and received 27 from Peter, but then accidentally lost 19. How many marbles does Ethan have now?

- A. 88 B. 98 C. 108 D. 118

BONUS QUESTIONS:

31. A function $f(x)$ is defined as $3x^2+3x+3$. What is the value of $f(3)$?

- A. 3 B. 9 C. 27 D. 39

32. Simplify $(x^2+6x+9)/(x+3)$?

- A. x B. x+3 C. x+6 D. $(x^2+6x+9)/(x+3)$