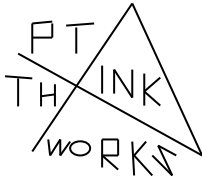


Score #1: _____	Score #2: _____	Score #3: _____	<u>        </u> <b>Final Score</b>
Grader: _____	Grader: _____	Grader: _____	
Name: _____			
School: _____			
Grade: 4 <sup>th</sup> 5 <sup>th</sup>			



## Elementary General Math

October 30, 2010

### General Directions

This test will last for 40 minutes. There are 50 problems on the test.

Write all answers on your scantron answer sheet using a pencil.

You may write on the test and show work on the test. You are not required to show any of your work or calculations.

You may skip around on the test. All problems have only one correct answer.

Calculators may NOT be used on this test.

Scoring: All problems correctly answered are worth 5 points. Two points will be subtracted for all problems answered incorrectly. No points are subtracted for problems that are skipped.

Tiebreakers: (1) Percent accuracy      (2) First problem missed (not counting skips).

# **Klein Collins Math Contest**

## **October 30, 2010**

### General Math Test – 4<sup>th</sup> and 5<sup>th</sup> Grade

Choose the letter of the correct answer. You may skip around on this test.

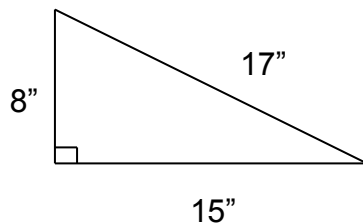
1.  $2\frac{1}{2} + 5\frac{3}{7} =$

- A.  $7\frac{13}{14}$       B.  $7\frac{4}{9}$       C.  $7\frac{3}{14}$       D.  $7\frac{11}{14}$       E.  $8\frac{1}{14}$

2. What is the largest prime number from these choices?

- A. 91      B. 77      C. 67      D. 53      E. 99

3. What is the area of this triangle?



- A.  $120 \text{ in}^2$       B.  $40 \text{ in}^2$       C.  $60 \text{ in}^2$       D.  $25 \text{ in}^2$       E.  $32 \text{ in}^2$

4.  $8,432 + 721 + 91 =$

- A. 8,154      B. 8,164      C. 9,144      D. 9,155      E. 9,244

5. Tom went shopping with \$40 in his pocket. He spent \$5.73 on a sandwich and soft drink. He lost two quarters while walking from the sandwich shop to the baseball game. He spent \$11 to purchase his ticket for the baseball game. After the game, he bought a snow cone for 75¢ and walked home. How much money did he have left when he got home?

- A. \$23.52      B. \$22.52      C. \$23.02      D. \$22.02      E. \$22.27

6.  $15 + 12 + 34 + 18 + 43 + 21 + 76 + 8 - 137 =$

- A. 91      B. 90      C. 364      D. 89      E. 92

7. Change  $321_4$  to base 10.

- A. 321      B. 57      C. 21      D. 33      E. 3210

8.  $\sqrt{25} + \sqrt{36} =$

- A. 51      B. 23      C. 11      D. 121      E. 30.5

9.  $62 + 76 + 14 - 22 + 6 - 31 =$

- A. 105      B. 106      C. 107      D. 104      E. 108

10. Bryan had a bag of gummie bears. He had 4 red gummie bears, 8 blue gummie bears, and 12 green gummie bears. What is the probability that he would blindly pick a red gummie bear out of the bag?

- A.  $\frac{1}{3}$       B.  $\frac{1}{6}$       C.  $\frac{1}{2}$       D.  $\frac{5}{6}$       E.  $\frac{1}{5}$

11.  $4444 \times 25 =$

- A. 1111      B. 11110      C. 111100      D. 111200      E. 112200

12. Which of the following numbers is an integer?

- A. 73.5      B.  $\frac{1}{4}$       C. 34      D.  $\frac{5}{8}$       E.  $\sqrt{45}$

13. What is the value of 15 quarters, 7 dimes, 5 nickels, and 5 pennies?

- A. \$4.75      B. \$3.75      C. \$5.00      D. \$5.05      E. \$1.75

14. What is the product of 18 and  $\sqrt{49}$ ?

- A. 872      B. 126      C. 441      D. 25      E. 42.5

15. The perimeter of an equilateral triangle with a side length of 39 is:

- A. 87      B. 99      C. 78      D. 127      E. 117

16.  $58,764 - 21,593 =$

- A. 37,231      B. 37,171      C. 37,173      D. 37,229      E. 37,167

17. What is the units digit of  $3^{19}$ ?

- A. 1      B. 9      C. 3      D. 7      E. 5

18.  $12 + \sqrt{25} + 35^0 + \frac{8}{4} =$

- A. 74                  B. 54                  C. 20                  D. 40                  E. 61.5

19. The greatest common factor of 48 and 72 is:

- A. 2                      B. 4                      C. 6                      D. 12                      E. 24

20. Ayden ordered 4 gross of pencils. When the shipment arrived, he noticed that 3 dozen were broken. How many of the pencils were not broken?

- A. 540                  B. 364                  C. 36                      D. 60                      E. 440

21. How many prime numbers are between 0 and 100?

- A. 23                      B. 24                      C. 25                      D. 26                      E. 27

22. How many ways could Allyson choose 3 pictures from a collection of 5 pictures? She is planning on placing the 3 pictures in an envelope and mailing them to her sister.

- A. 15                      B. 8                      C. 3                      D. 20                      E. 10

23. 846.25 km = \_\_\_\_\_ m

- A. 84.625                  B. 846250                  C. 6.4625                  D. 8462500                  E. 0.84625

24. What is the total of the perimeters of one square and one equilateral triangle if a side of the square and a side of the triangle are both 7 inches?

- A. 14"                      B. 35"                      C. 42"                      D. 49"                      E. 56"

25. Multiply the smallest prime number by 6. Add the result to the smallest two-digit prime number. Now add this answer to the largest two-digit prime number. Now multiply this answer by 3. What is your final result?

- A. 360                      B. 348                      C. 366                      D. 372                      E. 345

26. Which of the following is an integer?

- A. 8.35                      B.  $\sqrt{35}$                       C. 17                      D.  $\frac{7}{11}$                       E. -2.5

27.  $837 \times 34 =$

- A. 26458                  B. 28558                  C. 29458                  D. 28468                  E. 28458

28. The sum of the Arabic numeral 729 and the Roman numeral DCLV is:

- A. 1294      B. 1284      C. 1384      D. 1884      E. 1344

29.  $(44 \div 11) + (34 - 21) =$

- A. 17      B. 16      C. 27      D. 22      E. 15

30. What is the sum of the digits of the sum of  $18 + 37 + 98 + 43 + 12$ ?

- A. 8      B. 9      C. 10      D. 11      E. 12

31. What is the prime factorization of 240?

- A.  $2^3 \times 3 \times 5$       B.  $2^2 \times 3 \times 5$       C.  $2^4 \times 3 \times 5$       D.  $2 \times 3 \times 5$       E.  $2^4 \times 15$

32. What is the area of a rectangle with a length of 12 in. and a width of 9 in.?

- A.  $42 \text{ in}^2$       B.  $108 \text{ in}^2$       C.  $96 \text{ in}^2$       D.  $98 \text{ in}^2$       E.  $54 \text{ in}^2$

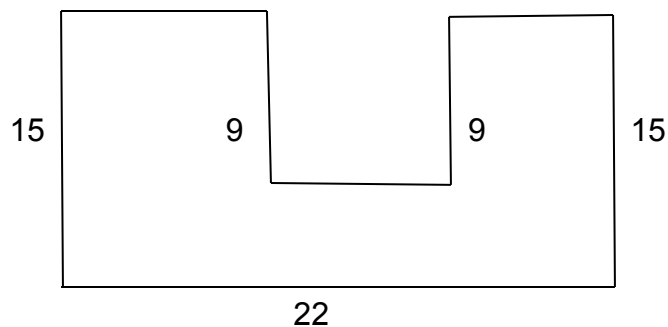
33. What is the perimeter of a square with an area of  $144 \text{ in}^2$ ?

- A. 48 in.      B. 44 in.      C. 72 in.      D. 88 in.      E. 24 in.

34. Find the sum of 54,367 and 89,432 and 9,999.

- A. 152,798      B. 153,698      C. 152,788      D. 153,898      E. 153,798

35. Find the perimeter of this figure:



- A. 70      B. 92      C. 79      D. 101      E. 94

36. What is the value of 47 quarters, 17 dimes, and 34 nickels?

- A. \$15.25      B. \$16.15      C. \$15.15      D. \$14.15      E. \$16.25

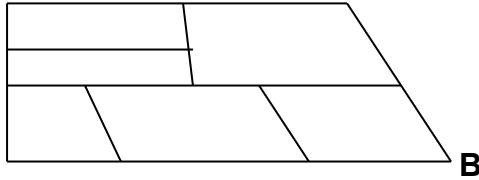
37. The time 84.5 hours past 2:45 pm would be:

- A. 3:15 am      B. 3:30 am      C. 3:15 pm      D. 6:15 pm      E. 2:50 am

38. What is the sum of 5,678 and 4,934 and 6,782?  
 A. 17,384    B. 16,394    C. 17,394    D. 17,404    E. 17,374

39. How many paths exist from A to B, if you are only allowed to move down ( $\downarrow$ ) or to the right ( $\rightarrow$ )? A diagonal move downward is also acceptable.

**A** A. 9    B. 8    C. 7    D. 10    E. 11



40. Add 5% of 200 to 10% of 300. Now add  $3^3$ . What is the result?  
 A. 49    B. 24    C. 37    D. 47    E. 67

41. How many factors does 240 have? (Hint: The factors of 12 are 1,2,3,4,6, and 12.)  
 A. 14    B. 20    C. 16    D. 17    E. 18

42.  $639.2 \times 45.3 =$   
 A. 28855.76    B. 28955.66    C. 28965.76    D. 28955.76    E. 2895.576

43.  $23 \times 23 + 41 \times 41 =$   
 A. 2200    B. 2310    C. 2214    D. 2310    E. 2210

44. If 5 eggars = 4 harpons and 2 harpons = 12 garglegs, then 20 eggars = how many garglegs?  
 A. 96    B. 48    C. 60    D. 192    E. 39

45. What is the sum of the factors of 240?  
 A. 713    B. 712    C. 503    D. 744    E. 706

46. What is the sum of the digits of 487,321,982,403,675  
 A. 70    B. 69    C. 68    D. 71    E. 67

47. What is the average (mean) of 94, 96, 98, 102, 110, 83, 48, 22, 49, and 18?  
 A. 71.8    B. 70    C. 73    D. 71    E. 72

48. If  $A \otimes B = 2 \times A + B$ , then what is the value of  $12 \otimes 3$ ?  
 A. 215    B. 27    C. 30    D. 17    E. 2123

49. What is the sum of 4 and 12?  
 A. 16    B. 48    C. 8    D. 3    E. 14

50. What is the 9<sup>th</sup> number in this pattern: 1, 3, 6, 10, 15, \_\_, \_\_, \_\_, \_\_?  
 A. 21    B. 45    C. 35    D. 36    E. 55