Name: _____

School: _____

Grade: 4th 5th

Elementary General Math #2

January 21, 2012

General Directions

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

Write all answers on your answer sheet.

Always use capital letters on your answer sheet.

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 Oak Elementary Math Test #2
January 21, 2012

General Math Test – 4th and 5th Grade

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

1. W hat is the twelfth number in this pattern: 3, 12, 6, 16, 9, 20, 12, …?

A. 12 B. 32 C. 18 D. 36 E. 26

2. How many prime numbers are between 1 and 90 ?

A. 25 B. 21 C. 24 D. 20 E. 22

3. Ayden loves math. One day, he wrote the first 12 rows of Pascal's triangle on a yellow piece of paper. Knowing that the top row is called row zero, he decided to add the numbers in each row. The sum of the numbers in row 7 was 128. What was the sum of the numbers in row 5?

A. 5 B. 32 C. 16 D. 8 E. 64

4. $\frac{3}{8} + \frac{3}{8}$ minus $\frac{3}{8}$ = ?

A. .375 B. $\frac{9}{16}$ C. $\frac{9}{64}$ D. $\frac{3}{64}$ E. $\frac{3}{4}$

5. What is the largest composite number from these choices?

A. 53 B. 61 C. 109 D. 91 E. 87

6. The difference of 67,981 and 47,781 is:

A. 2,200 B. 20,127 C. 20,200 D. 20,002 E. 20,300

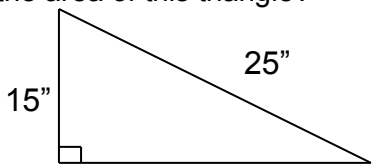
7. Change 111_6 to base 10.

A. 86 B. 43 C. 27 D. 19 E. 1111

8. $56 + \sqrt{25} + 3! + \sqrt{36} =$

A. 59 B. 60 C. 78 D. 73 E. 120

9. What is the area of this triangle?



A. 150 in² B. 35 in² C. 375 in² D. 187.5 in² E. 300 in²

10. 871 + 114 – 66 + 311 =

A. 1330 B. 1130 C. 1231 D. 1232 E. 1230

11. Katelyn had a bag of caramel tots. She had 15 red tots, 18 blue tots, and 21 green tots. What is the probability that she would blindly pick a blue tot out of the bag?

A. $\frac{1}{3}$ B. $\frac{1}{6}$ C. $\frac{2}{5}$ D. $\frac{21}{53}$ E. $\frac{1}{5}$

12. What is the largest prime number less than 40?

A. 32 B. 33 C. 35 D. 37 E. 39

13. Which of the following numbers is an integer?

A. 34.75 B. ¾ C. 814 D. $\frac{5}{8}$ E. $\sqrt{29}$

14. What is the value of 34 quarters, 12 dimes, 8 nickels, and 7 pennies?

A. $10.17 B. $9.97 C. $10.07 D. $34.07 E. $9.27

15. What is the sum of the factors of 56?

A. 64 B. 102 C. 105 D. 120 E. 119

16. What is the name of a polygon with 12 sides?

A. heptagon B. octagon C. hexagon D. dodecagon E. nonagon

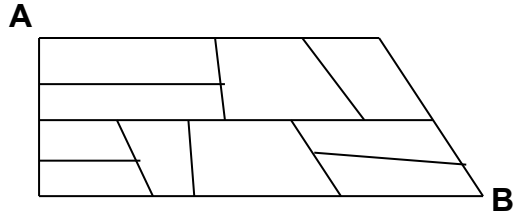
17. 68,884 + 31,003 =

A. 79,887 B. 89,887 C. 99,882 D. 99,887 E. 98,887

18. What is the units digit of 7^{43} ?

A. 1 B. 9 C. 3 D. 7 E. 8

19. How many paths exist from A to B, if you are only allowed to move down (↓) or to the right (→)? A diagonal move downward is also acceptable.



A. 14 B. 15 C. 18 D. 16 E. 13

20. Add 50% of 200 to 100% of 400. Now add 8 x 7. What is the result?
A. 556 B. 656 C. 806 D. 206 E. 506

21. How many distinct integral factors does 24 have? (Hint: The factors of 18 are1,2,3,6,9, and 18.)
A. 8 B. 6 C. 10 D. 24 E. 9

22. The reciprocal of 3.25 is the same as the value of:
A. 5.23 B. four-thirteenths C. four-tenths D. one-fourth E. 0.25

23. 25 X 25 + 2 X 25 + 5 X 25 + 25 X 25 =
A. 1425 B. 2325 C. 2525 D. 1375 E. 2500

24. The reciprocal of 8 is $\frac{1}{8}$ and the reciprocal of $\frac{2}{5}$ is $\frac{5}{2}$. What value is the same as 4 times the reciprocal of $\frac{1}{24}$?
A. 96 B. $\frac{1}{4}$ C. 24 D. $\frac{1}{6}$ E. 6

25. What is the median of 54, 36, 64, 36, 74, 36, 44, 36, 84, and 36?
A. 55 B. 74 C. 36 D. 40 E. 44

26. What is the sum of the digits of 9,546,111,655?
A. 42 B. 41 C. 44 D. 655 E. 43

27. What is the average (mean) of 54, 36, 64, 36, 74, 36, 44, 36, 84, and 36?
A. 49 B. 50 C. 48 D. 51 E. 49.9

28. If A ¥ B = (12 X B) + (A X 3), then what is the value of 6 ¥ 5?
A. 72 B. 78 C. 87 D. 79 E. 26

29. What is the sum of 48 and 63 ?
A. 120 B. 121 C. 111 D. 131 E. 110

30. What is the 11th number in this pattern: 0, 1, 4, 9, 16, 25, __, __, __, __?
A. 121 B. 111 C. 36 D. 144 E. 100

31. $3! + \sqrt{49} + 78^0 + \frac{12}{3} + 42 =$

A. 134 B. 102 C. 60 D. 137 E. 57

32. The greatest common factor of 80 and 72 is:

A. 2 B. 4 C. 8 D. 12 E. 20

33. Ayden ordered 4 gross of glazed doughnuts for his breakfast party. When he opened the boxes, he noticed that 3 dozen were not glazed but caked. How many of the doughnuts were glazed?

A. 12 B. 128 C. 540 D. 364 E. 108

34. How many numbers between 30 and 100 contain a seven as a digit? (Example: The number 37 has a seven in the one's place.)

A. 16 B. 18 C. 17 D. 19 E. 10

35. How many ways could Allyson arrange 5 pictures from a collection of 6 pictures? She plans to place the 5 pictures in a vertical picture frame that contains slots for 5 pictures. She had some difficulty deciding which picture to place in slot 3.

A. 360 B. 720 C. 2,480 D. 30 E. 180

36. 746.25 hm = _____ cm

A. 74.625 B. 746250 C. 6.4625 D. 7462500 E. 0.74625

37. What is the total of the perimeters of two regular octagons and one regular quadrilateral if each side of both polygons measures 16 inches?

A. 320” B. 226” C. 196” D. 420” E. 220”

38. What is the sum of the degrees of the 3 angles in a triangle?
A. 90 B. 360 C. 180 D. 120 E. 160

39. How many distinct arrangements of the word TABLE are possible? (Hint: The arrangement does not have to spell a correct word. TBLEA would count as an arrangement.)

A. 124 B. 120 C. 6 D. 24 E. 15

40. 5,611 + 4,379 =

A. 10,090 B. 9,970 C. 9,981 D. 9,980 E. 9,990

41. The product of the Arabic numeral 239 and the Roman numeral LXV is:
A. 25,545 B. 15,535 C. 59,750 D. 25,615 E. 16,435

42. ($44 \div 11$) + (15 x 7) + (33 – 2) =
A. 150 B. 140 C. 148 D. 160 E. 156

43. What is the sum of 38 + 48 + 98 + 47 + 62?
A. 291 B. 293 C. 283 D. 282 E. 303

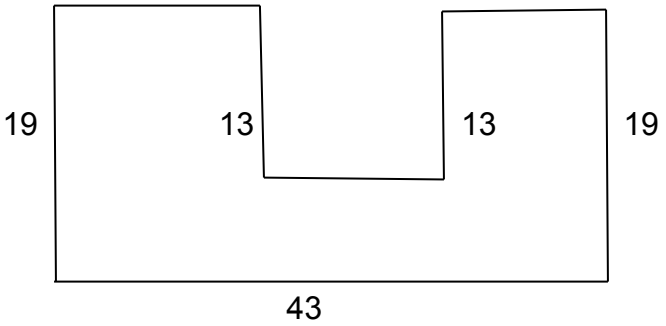
44. What is the prime factorization of 60?
A. 2^3 x 3^2 x 5^2 B. 2^2 x 3 x 5 C. 2^5 x 3 x 5 D. 2 x 3 x 5 E. 2^4 x 15

45. What is the perimeter of a rectangle with a length of 5 in. and a width of 2 in.?
A. 10 in B. 7 in C. 16 in D. 14 in E. 100 in

46. 56 + 22 =
A. 76 B. 77 C. 72 D. 78 E. 68

47. Find the product of 43 and 21.
A. 903 B. 913 C. 803 D. 503 E. 64

48. Find the area of this figure. The figure represents a rectangle with a square missing.



A. 648 B. 817 C. 628 D. 814 E. 119

49. What is the value of 2 quarters, 3 dimes, and 4 nickels?
A. $1.10 B. $1.00 C. $1.05 D. $1.20 E. $1.01

50. The time 67.5 hours past 2:45 pm would be:

A. 10:50 pm B. 9:50 am C. 10:15 am D. 10:15 pm E. 10:50 am