1. The sum of (-12) and (5) is

(a) -7

(c) 12

(b) 7

(d) 5

2. The perimeter of the equilateral triangle is 18.Find the length of each

(a) 9

(c) 4

(b) 5

(d) 6

3. How to express 3 x 3 x 3 using exponent?

(a) 27

(c) 3^3

(b) 3^2

(d) 3^6

4. What is the value of 0^{10}

(a) -1

(c) 0

(b) 5/3

(d) 2/3

5. A father is 30 years older than his son, and one year ago he was four times as old as his son. Find the father's present ages.

(a) 11

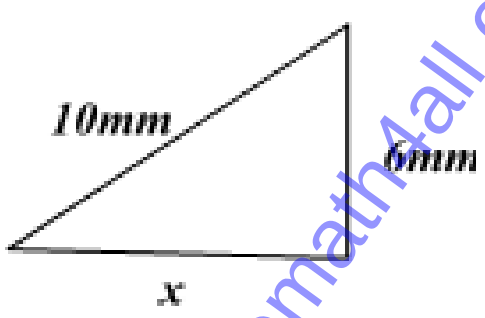
(c) 55

(b) 40

(d) 41

6. Calculate the following

$P = 24mm$



$x =$

(a) 5

(c) 6

(b) 8

(d) 10

7.

This square has a perimeter of 20 inches.

(a) 6

(c) 7

(b) 5

(d) 8

8. A triangle has sides of lengths 19, 3 and 18 meters. What type of triangle is it?

(a) Equilateral

(c) Right

(b) Scalene

(d) Isosceles

9. The measure of an angle is 77°. What is the measure of a supplementary angle?

(a) 103

(c) 170

(b) 156

(d) 165

10. Find the 21st term in the sequence 2, 4, 6, 8 . . .

(a) 22

(c) 42

(b) 50

(d) 48

11. A train is traveling at the rate of 1 mile per 1 minute and 20 seconds. If the train continues at this rate, how many miles will it travel in one hour?

(a) 25 miles

(c) 15 miles

(b) 20 miles

(d) 45 miles

12. How many zoinks can you buy with 300 zonkers knowing the exchange rate is 20 zoinks per zonker?

(a) 5000

(c) 6000

(b) 2000

(d) 3600

13. In parallelogram $ABCD$, $AB = x + 8$, $BC = 3x$, and $CD = 4x - 4$. What is the perimeter?

(a) 36

(c) 37

(b) 48

(d) 50

14. An omelet requires 2 eggs and 1 pepper. I have 12 eggs and 8 peppers. How many whole omelets can I make?

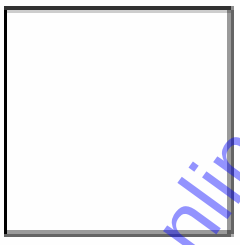
(a) 6

(c) 2

(b) 4

(d) 8

15. Find the perimeter of the following shape



(a) 40

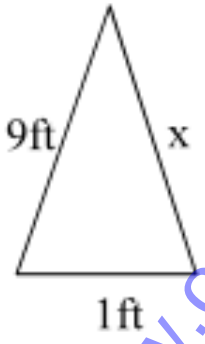
(c) 52

(b) 58

(d) 32

16.

Perimeter of $\triangle$ = 19ft



What is value of x? ____

(a) 7

(c) 9

(b) 8

(d) 2

17. The average of seven numbers is 49. If 1 is added to the first number, 2 is added to the second number, 3 is added to the third number and so on, what is the new average?

(a) 52

(c) 53

(b) 48

(d) 33

18. The length of a rectangle is four times as long as its width. The area of the rectangle is 100 meters squared. What is the length of the rectangle?

(a)15

(c) 32

(b) 20

(d) 10

19. A palindrome number, such as 22 or 565, is the same when written forwards or backwards. How many palindromes are there that are less than 1000?

(a) 88

(c) 89

(b) 98

(d) 99

20. My change purse contains 16 coins in dimes and quarters. If the value is $2.50, how many dimes are there?

(a) 30

(c) 15

(b) 26

(d) 10

21. The vertices of a triangle are at (3,1), (8,1) and (8,3). What is the area of the triangle?

(a) 5

(c) 10

(b) 15

(d) 14

22. Find the 6th term in the geometric sequence 3, 6, 12, · · ·

(a) 86

(c) 36

(b) 96

(d) 54

23. The measure of the supplement of an angle is 4 times the measure of its complement. Find the measure of the angle, in degrees.

(a) 180

(c) 60

(b) 140

(d) 160

24. Watson assigns consecutive letters of the alphabet increasing consecutive integer values, starting from A. If H + K + L + P = 2007, then what is Z?

(a) 516

(c) 136

(b) 336

(d) 436

25. How many factors does the number 540 have?

(a) 28

(c) 24

(b) 30

(d) 32

26. Jan gives away 10 muffins out of every 12 that she bakes. If Jan bakes 60 muffins, how many does she give away?

(a) 20 (c) 30

(b) 50 (d) 60

27. Donald has twice as many books as Kevin. Kevin has 4 times as many books as Watson. Watson has 6 books. How many books do Donald, Kevin, and Watson have in total?

(a) 24 (c) 48

(b) 78 (d) 72

28. How many perfect squares are there between 2 and 140?

(a) 10 (c) 8

(b) 15 (d) 12

29. The sum of the ages of Susan and Jack is 30. Susan is 4 years younger than Jack. How old is Jack?

(a) 18

(b) 26

(c) 17

(d) 11

30. The hypotenuse of a right triangle has length 10, and one of the legs has length 6. What is the area of the triangle?

(a) 24

(b) 28

(c) 25

(d) 26

31. How many 2-digit whole numbers contain the digit 2 exactly once?

(a) 18

(b) 16

(c) 14

(d) 17

32. Farmer John wants to buy fencing for the perimeter of his rectangular field. The length of the field is 17 meters and the area of the field is 119 square meters. Given that fencing costs 10 cents per meter, how much money will Farmer John have to spend?

(a) $4.80

(b) $2.80

(c) $3.20

(d) $5.30

33. Sally has 7 coins, which together make 72 cents. Each coin is a penny, nickel, dime or quarter. How many dimes does Sally have?

(a) 2

(b) 4

(c) 3

(d) 1

34. What is the positive difference between the sum of the first fifteen positive even numbers and the sum of the first fifteen positive odd numbers?

(a) 10

(b) 20

(c) 15

(d) 30

35. My initials are the first letter of my first name followed by the first letter of my last name. How many possible sets of initials could I have? (There are 26 letters.)

(a) 676

(c) 628

(b) 522

(d) 525

36. Find the value of (-5) x (8)

(a) -13

(c) 3

(b) -40

(d) 13

37. If the length, width, and height of a box (rectangular prism) are all doubled, by how many times is the volume of the box increased?

(a) 12

(c) 8

(b) 13

(d) 14

38.

Compute $\left(\sqrt{2^3}\right)^{\frac{4}{3}}$.

(a) 2

(b) 8

(c) 4

(d) 5

39. Dr. Meyers raises chickens and rabbits in his classroom. He counts 450 total animals, and 1050 total legs on the animals. Each chicken has 2 legs, while each rabbit has 4 legs. How many rabbits does Dr. Meyers have?

(a) 75

(b) 25

(c) 15

(d) 55

40. Simplify the following 12a – 5a +8a

(a) 14a

(b) 20a

(c) 18

(d) 15a

41. Find the value of 3^4

(a) 12

(b) 9

(c) 7

(d) 81

42. What is the unit's digit of 8^{22}?

(a) 5

(b) 16

(c) 4

(d) 8

43. The wrong number of the sequence 1, 8, 27, 64, 124, 216, 343 is

(a) 27

(b) 124

(c) 64

(d) 343

44. How many prime numbers are less than 20?

(a) 8

(b) 4

(c) 7

(d) 5

45. If Chris has a colony of bacteria that doubles in population every half-hour, how many bacteria will he have at the end of four hours if he starts with 2 bacteria?

(a) 515

(b) 536

(c) 512

(d) 420

46. How many 3 x 3 x 3 blocks does it take to completely fill a 12 x 15 x 18 box?

(a) 210

(b) 130

(c) 140

(d) 120

47. How many positive integers k are there for which 64 - k is the square of an integer?

(a) 1

(b) 8

(c) 3

(d) 4

48. One of the factors of the following quadratic equation
X^2-4x+3

(a) (x-2)

(b) (x+1)

(c) (x-3)

(d) (x-4)

49. What is the value of 4^4

(a) 256

(b) 16

(c) 8

(d) 32

50. The mean of 21, 25, 29, 22, x, 27 is 24.Find the value of x

(a) 20

(c) 30

(b) 40

(d) 50

Answers					
1. a	2. d	3. c	4.c	5.d	6.b
7. b	8. b	9. a	10. c	11. d	12. c
13. b	14. a	15. d	16. c	17. c	18. b
19. d	20. d	21. a	22. b	23. c	24. a
25. c	26. b	27. b	28. a	29. c	30. a
31. d	32. a	33. d	34. c	35. a	36. b
37. c	38.c	39. a	40. d	41. d	42. c
43. b	44. a	45. c	46. d	47. b	48.b
49.a	50. a				