1. Solve for "x" : 6 + (-3)+(-4) + x = 5 – (-3x) - (-8)

(a) -7

(c) -5

(b) 11

(d) 5

2. A rectangle has a perimeter of eighty inches. The length is three times the width. Find the area of the rectangle, in square inches.

(a) 200 sq.inches

(c) 300 sq.inches

(b) 250 sq.inches

(d) 350 sq.inches

3. If all the aces are removed from a standard deck of Cards, find the probability of drawing a club from the remaining deck of cards, and then rolling an even number on a standard cubical die.

(a) 1/2

(c) 1/6

(b) 1/8

(d) 1/7

4. Find the maximum number of triangles that can be drawn in a convex quadrilateral by only connecting vertices.

(a) 8
(c) 6
(b) 7
(d) 5

5. When counting by sevens starting with seven, how many two-digit numbers would you say?

(a) 25
(c) 55
(b) 40
(d) 13

6. Alex had seven coins in his pocket that were either nickels or dimes. The coins had a total value of fifty-five cents. If Alex spent all his nickels, how many cents would he have left?

(a) 30
(c) 25
(b) 40
(d) 15

7. Kemp is able to paint a rectangular wall thirty feet by twenty feet with one gallon of paint. How many gallons of paint will he need to paint a rectangular wall sixty feet by sixty feet?

(a) 3

(b) 4

(c) 6

(d) 7

8. Michael multiplied 3 different prime numbers together. How many different positive integers are factors of this product?

(a) 8

(b) 7

(c) 6

(d) 5

9. A palindrome reads the same backwards as forwards. What is the largest even 5-digit integer that is a palindrome?

(a) 58889

(b) 89998

(c) 47708

(d) 65558

10. Mr. Mark has driven his new car thirty miles in twenty-five minutes. At this rate, how many hours will it take to drive two hundred sixteen miles?

(a) 5

(c) 6

(b) 3

(d) 4

11. The product of five counting numbers is thirty-two. What is the largest possible sum of the five counting numbers?

(a) 24

(c) 14

(b) 41

(d) 36

12. What is the perimeter in meters of a decagon with sides of length fifty centimeters?

(a) 8

(c) 5

(b) 1

(d) 6

13. Wheat increased in price from $3 a bushel to $17 a bushel. How many fewer bushels of wheat are you able to buy for $510 at the $17 per bushel price than at the original price?

(a) 440

(c) 140

(b) 380

(d) 290

14. Three hundred percent of twenty percent of my savings is equal to what percent of my savings?

(a) 60%

(c) 20%

(b) 30%

(d) 50%

15. A box is a rectangular prism. The volume of the box is twenty-four cubic inches. The lengths of two of the edges are two inches and four inches. What is the length, in inches, of the third edge?

(a) 6

(c) 5

(b) 7

(d) 3

16. How many ways can three married couples sit in a row of six seats if each man must sit next to his wife?

(a) 17
(c) 32
(b) 48
(d) 20

17. Find the units digit of the product of the first seventeen primes.

(a) 0
(c) 2
(b) 4
(d) 3

18. A chicken farm ships twenty-five dozen eggs at a time to town. The chickens lay thirty eggs a day. How many days will it take to get enough eggs for a shipment?

(a) 8
(c) 10
(b) 9
(d) 11

19. How many integers from thirty-three to seventy-seven have at least one digit that is a four?

(a) 10
(c) 12
(b) 9
(d) 14

20. When Ronald drove his car as part of his job, his expenses were paid at a rate of forty-five cents per mile. For the month of June he got a check for one hundred twelve dollars and fifty cents to pay his car mileage expenses. In June, how many miles did Ronald drive as part of his job?

(a) 250
(c) 260
(b) 255
(d) 265

21. The area of a certain square, measured in square inches, is half the perimeter of the square, measured in inches. What is the number of inches in the perimeter of this square?

(a) 6
(c) 7
(b) 8
(d) 9

22. Two positive integers have a least common multiple of forty-five. If one of the numbers is fifteen, what is the smallest the other number could be?

(a) 9

(b) 8

(c) 5

(d) 6

23. At the yearly Math Retreat, one thousand five hundred sixty questions were written. Each test writer wrote an average of sixty-five questions. How many test writers were present?

(a) 52

(b) 15

(c) 24

(d) 36

24. When the fraction twenty-seven over thirty-six is simplified, what is the sum of the reduced numerator and denominator?

(a) 6

(b) 3

(c) 5

(d) 7

25. Two angles are complementary. The ratio of the two angles is one to four. What is the degree measure of the larger angle?

(a) 52°
(c) 62°
(b) 42°
(d) 72°

26. A positive integer has three digits, which could be the same or different. If the sum of these digits is less than ten, what is the largest this integer could be?

(a) 1100
(c) 900
(b) 1000
(d) 800

27. What is the perimeter in inches of a rectangle with an area of 28 square inches and one side of length four inches?

(a) 12
(c) 22
(b) 24
(d) 14

28. Evaluate: twenty point four plus thirty point five plus ten point two. If your answer is not a whole number, give it as a decimal.

(a) 61.1

(c) 62.1

(b) 63.1

(d) 64.1

29. What is the remainder when six-hundred sixty-two is divided by 7?

(a) 2

(c) 5

(b) 4

(d) 7

30. What is the height, in centimeters, of a cylinder with radius three centimeters and volume six pi cubic centimeters?

(a) 1/3

(c) 3/5

(b) 5/7

(d) 2/3

31. How many seconds have elapsed from 8:19 AM to 9:24 AM the same day?

(a) 4000 seconds

(b) 3600 seconds

(c) 3900 seconds

(d) 2500 seconds

32. If fifty-three plus X is equal to seventy, then what is seventy plus X?

(a) 87

(b) 35

(c) 30

(d) 50

33. The average of five numbers is five. If four of the numbers are ones, what is the fifth number?

(a) 21

(b) 28

(c) 32

(d) 44

34. One hundred thirty-two is what fraction of fifty-five?

(a) 7/8
(c) 5/12
(b) 8/7
(d) 12/5

35. What number must I subtract from the product of 4 and 17 to get an answer equal to the sum of 4 and 17?

(a) 21
(c) 53
(b) 47
(d) 32

36. How many meters are in two point three one kilometers?

(a) 1591
(c) 2310
(b) 4615
(d) 5008

37. How many distinguishable ways can I arrange the letters in the word "Masters", spelled M-A-S-T-E-R-S, if the T must come first?"

(a) 546
(c) 450
(b) 360
(d) 240

38. When counting backwards from 100 by 19s, the first number I say is "100". What is the next even number I will say?

(a) 20

(c) 40

(b) 62

(d) 50

39. What is three-eighths plus two-thirds? Express your answer as a reduced fraction.

(a) 1/3

(c) 1/15

(b) 2/6

(d) 25/24

40. The circumference of a circle is thirty pi inches. What is the number of square inches in the area of the circle?

(a) 425π sq. inches

(c) 325π sq. inches

(b) 225π sq. inches

(d) 125π sq. inches

41. A number when divided by 342 gives a remainder 47. When the same number is divided by 19, what would be the remainder?

(a) 9

(b) 10

(c) 11

(d) 12

42. A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds, all starting at the same point. After what time will they meet again at the starting point.

(a) 26 minutes 12 seconds

(b) 16 minutes 12 seconds

(c) 46 minutes 12 seconds

(d) 36 minutes 12 seconds

43. The price of commodity X increases by 40 cents every year, while the price of commodity Y increases by 15 cents every year. If in 2001, the price of commodity X was $4.20 and that of Y was $6.30, in which year commodity X will cost 40 cents more than the commodity Y?

(a) 2011

(b) 2010

(c) 2009

(d) 2008

44. In dividing a number by 585, a student employed the method of short division. He divided the number successively by 5, 9 and 13 (factors of 585) and got the remainders 4, 8 and 12. If he had divided the number by 585, the remainder would have been:

(a) 585 (c) 583

(b) 584 (d) 582

45. A tailor has 37.5 meters of cloth. And he has to make 8 pieces out of a meter of cloth. How many pieces can he make out of this cloth?

(a) 150 (c) 250

(b) 200 (d) 300

46. A train starts full of passengers. At the first station, it drops one-third of the passengers and takes 280 more. At the second station, it drops one half of the new total and takes 12 more. On arriving at the third station, it is found to have 248 passengers. Find the number of passengers in the beginning.

(a) 210 (c) 288

(b) 230 (d) 261

47. A is the event of getting an even number when a coin is tossed.

The above event is a/an

(a) Impossible event

(c) Possible event

(b) Sure event

(d) exhaustive event

48. If $(x^2-1)/(x+1) = 4$, then the value of "x" is

(a) 6

(c) 3

(b) 5

(d) 4

49. In an examination, a student scores 4 marks for every correct answer and loses one mark for every wrong answer. If he attempts in all 60 questions and secures 130 marks, the number of quest ions he attempts correctly is:

(a) 31

(c) 32

(b) 38

(d) 39

50. Find the arithmetic mean of the following data: 20, 30, 40, 50, and 80.

(a) 43

(b) 44

(c) 47

(d) 46

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