BIBLIOGRAPHY

BOOKS/ THESIS


Saileela k,(2012), “a study on self-regulation, self efficacy and attitude towards mathematics of higher secondary students in relation to achievement”. Annamalai university


Shanty José(2009) “a study on emotional intelligence, family acceptance, school environment and academic achievement of secondary school students” Mother Teresa university


Journals


Effandi Zakaria and Norazah Mohd Nordin (2007) conducted “a study on the effects of mathematics anxiety on matriculation students as related to motivation and achievement” *Dissertation Abstracts international*, vol.68, No.4.


Karimi Ayatollah and Venkatesan (2008) conducted “a study on Psychometric properties and norms differences in mathematics anxiety scale for high school students in India”, *Research and Reflections on Education*, Vol.06, No.01


Lawrence Praveen kumar (2007) conducted “a study on relationship between anxiety and academic achievement of B.Sc maths students”, *Research and Reflections on Education*, Vol.06, No.03


Monica DeTure,(2004). “Cognitive Style and Self-Efficacy: Predicting Student Success in Online Distance Education”. *American Journal of Distance Education*, Volume 18, Issue 1, pages 21-38. 10.1207/s15389286ajde1801_3


Parvathamma and sharanamma (2010) conducted “a study on anxiety level and level of self-confidence and their relation with academic achievement”, *EDUTRACKS*, Vol.9, No.7


Page-Voth, Victoria; Graham, Steve,(1999). “Effects of goal setting and strategy use on the writing performance and self-efficacy of students with writing and learning


Rajni (2009) conducted “a study on mathematics anxiety and cross gender identity in young adult males and females”, Research and Reflections on Education, Vol.06, and No.01.


ShahapurNagappaPanchalingappa (2004) conducted “a study on self-confidence, anxiety, study habits and mathematics achievement of underachievers at secondary school level”, Research and Reflections on Education, Vol.02, No.03


Zimmerman, Barry J.; Martinez-Pons, Manuel, (1990). “Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy

http://dx.doi.org/10.1037/0022-0663.82.1.51.
WEBLIOGRAPHY

asiasociety.org/indian-mathematical-achievements
en.wikipedia.org
familyproject.sfsu.edu
psychology.about.com
www.aismta.com
www.alleydog.com/glossary
www.achievement.org
www.amtionline.com
www.bookrags.com/
www.education.gov.uk/get-into-teaching
www.familyacceptance.com
www.ibe.unesco.org
www.learningandtheadolescentmind.org
www.mathgoodies.com/articles/math_anxiety.htm
www.studentachievementmeasure.org
www.teachingideas.co.uk/maths/contents.htm
www.textbooksonline.tn.nic.in
www.tn.gov.in/schooleducation
www.tnschools.gov.in
www.yourdictionary.com
Dear Students,

I am pursuing PhD Degree in Education in the Department of Education, Annamalai University. Regarding my research work I need certain information. Hence I very kindly request you to fill in the following Proforma and put a (√) mark as per the instruction given in each research tools. This information provided by you will be used only for the purpose of research and kept confidential. You kind cooperation is solicited.

Thanking you

Yours faithfully

M.RAMACHANDRAN
1. If $A = \{4, \{4,5\}, 6\}$, which of the following is correct?
   (A) $\{4,5\} \in A$  (B) $\{4\} \in A$  (C) $\{6\} \in A$  (D) $\{5\} \in A$

2. If $X = \{b, \{c,d\}, e\}$ which of the following is a subset of $X$?
   (A) $\{b,c\}$  (B) $\{c,d\}$  (C) $\{d,e\}$  (D) $\{b,e\}$

3. Which of the following statements are true?
   (i) For any set $A$, $A$ is a proper subset of $A$
   (ii) For any set $A$, $\emptyset$ is a subset of $A$
   (iii) For any set $A$, $A$ is a subset of $A$
   (A) (i) and (ii)  (B) (ii) and (iii)  (C) (i) and (iii)  (D) (i) (ii) and (iii)

4. If a finite set $A$ has $m$ elements, then the number of non empty proper subset of $A$ is ...
   (A) $2^m$  (B) $2^{m-1}$  (C) $2^{m-1}$  (D) $2(2^{m-1}-1)$

5. The number of subset of the set $\{10, 11, 12\}$ is
   (A) 3  (B) 8  (C) 6  (D) 7

6. The number of subsets of a set with $m$ elements is …
   (A) $2^m$  (B) $m^2$  (C) $2^{m-1}$  (D) $m - 1^2$

7. Find the number of subsets $A = \{3,4,5,6,7\}$ ...
   (A) 36  (B) 34  (C) 32  (D) 30

8. Let $U = \{a,b,c,d,e,f,g,h\}$ and $A = \{b,d,g,h\}$, then $A^1 =$
   (A) $\{a,c,e,f\}$  (B) $\{c,e,f\}$  (C) $\{a,e,f\}$  (D) $A \cdot \{a,c,e,f,g\}$

9. Let $A = \{a,b,c,d,e\}$ and $B = \{a,d,e,f\}$, $A \cap B =$
10. If \(A = \{2,3,5,7,11\}, B = \{5,7,9,11,13\}\), find \(A \Delta B = \) 

(A) \(\{2,3,9,13\}\)  (B) \(\{2,9,11\}\)  (C) \(\{9,11,13\}\)  (D) \(\{3,9,11\}\)

11. If \(A = \{3,4\}\) and \(B = \{1,2,5\}\), then \(A \cup B = \) 

(A) \(\{1,2,3,4,5\}\)  (B) \(\{1,2,3\}\)  (C) \(\{4,5\}\)  (D) \(\{1,2,4,5\}\)

12. Which one of the following is correct? 

(A) \(\{x: x^2 = -1, x \in \mathbb{Z}\} = \emptyset\)  (B) \(\emptyset = 0\)  (C) \(\emptyset = \{0\}\)  (D) \(\emptyset = \emptyset\)

13. Which one of the following is correct? 

(A) Very subset of a finite set is finite. 
(B) \(P = \{x: x-8=-8\}\) is a singleton set 
(C) Every set has a proper set 
(D) Every non-empty set has at least two subsets \(\emptyset\) and the set itself.

14. If \(A\) is a proper subset of \(B\), then \(A \cap B = \) 

(A) \(A\)  (B) \(B\)  (C) \(\emptyset\)  (D) \(A \cup B\)

15. A set which is not finite is called an….. 

(A) Finite set  (B) infinite set  (C) sub set  (D) cardinality

16. \(A \cap (B \cup C) = \) 

(A) \((A \cap B) \cup (A \cap C)\)  (B) \((A \cup B) \cap (A \cup C)\)  (C) \(B \cup A\)  (D) \(B \cap A\)

17. If \(n[P(A)] = 64\) then \(n(A)\) is…. 

(A) 6  (B) 8  (C) 4  (D) 5

18. If \(A \subset B\) then \(A \cap B\) is…

(A) \(B\)  (B) \(A \setminus B\)  (C) \(A\)  (D) \(B \setminus A\)

19. If \(A = \{2,4,5,6\}, B = \{3,4,6,7\}\) then \(A \cap B = ?\)
Given \( A = \{1,2,3,4,5\}, \ B = \{3,4,5,6\} \) and \( C = \{5,6,7,8\} \), that \( A \cup (B \cap C) = \) ?

(A) \( \{1,2,3,4,5,6,7,8\} \)  
(B) \( \{6,7,4\} \)  
(C) \( \{5,4,3,2\} \)  
(D) \( \{5,6,7\} \)

21. A number having non-terminating and recurring decimal expansion is

(A) an integer  
(B) a rational number  
(C) an irrational number  
(D) a whole number

22. If a number has a non-terminating and non-recurring decimal expansion, then it is

(A) a rational number  
(B) a natural number  
(C) an irrational number  
(D) an integer.

23. Decimal form of \(-3/4\) is

(A) \(-0.75\)  
(B) \(-0.50\)  
(C) \(-0.25\)  
(D) \(-0.125\)

24. The \( \frac{p}{q} \) form of \( 0.\overline{3} \) is

(A) \( 1/7 \)  
(B) \( 2/7 \)  
(C) \( 1/3 \)  
(D) \( 2/3 \)

25. Which one of the following is not true?

(A) Every natural number is a rational number  
(B) Every real number is a rational number  
(C) Every whole number is a rational number  
(D) Every integer is a rational number.

26. Which one of the following has a terminating decimal expansion?

(A) \( 5/32 \)  
(B) \( 7/9 \)  
(C) \( 8/15 \)  
(D) \( 1/12 \)

27. Which one of the following is an irrational number?

(A) \( \pi \)  
(B) \( \sqrt{5} \)  
(C) \( 1/4 \)  
(D) \( 1/5 \)

28. Which of the following are irrational numbers?

(i) \( \sqrt{2} + \sqrt{3} \)  
(ii) \( \sqrt{4} + \sqrt{25} \)  
(iii) \( \sqrt{5} + \sqrt{7} \)  
(iv) \( \sqrt{8} - \frac{3}{\sqrt{8}} \)
29. Which one of the following is not a surd?

(A) \(\sqrt{\varepsilon}\)  (B) \(3\sqrt{3}\)  (C) \(\sqrt{4}\)  (D) \(\sqrt{3}\)

30. The simplest form of \(\sqrt{50}\) is

(A) \(5\sqrt{10}\)  (B) \(5\sqrt{2}\)  (C) \(10\sqrt{5}\)  (D) \(25\sqrt{2}\)

31. \(\sqrt{11}\) is equal to

(A) \(\sqrt{11}\)  (B) \(\sqrt{11^2}\)  (C) \(\sqrt{11^4}\)  (D) \(\sqrt{11^6}\)

32. \(\frac{2}{\sqrt{2}}\) is equal to

(A) \(2\sqrt{2}\)  (B) \(\sqrt{2}\)  (C) \(\frac{\sqrt{2}}{2}\)  (D) 2

33. Find the common difference of the A.P. 125, 120, 115,110……

(A) 5  (B) 8  (C) -8  (D) -5

34. To find the 15\(^{th}\) term of the A.P. 125, 120, 115,110……

(A) 55  (B) 66  (C) 45  (D) 25

35. Find the 17\(^{th}\) term of the A.P. 4,9,14……

(A) 55  (B) -55  (C) 45  (D) 84

36. Which of the following sequence are geometric sequence.

(A) 5,10,15,20…  (B) 0.15,0.015,0.0015  (C) 20,15,25,20  (D) 0.2, 0.4, 0.1…

37. Find the sum of the following series (1) 1+3+5+……to 25

(A) 25  (B) 625  (C) 33  (D) 44

38. Find the 8\(^{th}\) term of the sequence 1,1,2,3,5,8……is

(A) 25  (B) 24  (C) 33  (D) 21

39. If a,b,c are in G.P. then a-b/b-c is equal to
40. The sequence -3, -3, -3, -3……is

(A) an A.P. Only        (B) a G.P Only       (C) Neither A.P nor G.P.       (D) both A.P and G.P

41. The sum of 5 times x, 3 times y and 7

(A) 5(x+3y+7)       (B) 5x+3y+7      (C) 5x+3(y+7)       (D) 5x+3(7y)

42. One half of the sum of numbers a and b

(A) 1/2(a+b)       (B) 1/2 a+b       (C) 1/2(a-b)       (D) 1/2a+b

43. Three times the difference of x and y

(A) 3x-y       (B) 3+x       (C) x-y       (D) 3(x-y)

44. 2 less than the product of y and z

(A) 2-y       (B) 2+y       (C) yz-2       (D) 2y-z

45. Half of p added to the product of 6 and q

(A) P/2+6Q       (B) P+6Q/2      (C) 1/2(P+6Q)       (D) 1/2(6P+Q)

46. Solve 3P + 4 = 25

(A) 7       (B) 8       (C) 9       (D) 10

47. Solve 2(x+4) =12

(A) 2       (B) 6       (C) 8       (D) 4

48. Solve 5x+3=17-2x

(A) 15       (B) 12       (C) 3       (D) 2

49. A number when added to 60 gives 75 what is the number

(A) 15       (B) 20       (C) 25       (D) 30

50. 20 less than a number is 80 what is the number
51. Thendral’s age is 3 times less than that of Revathi, if Thendral’s age is 18, what is Revathi’s age?

(A) 20  (B) 21  (C) 22  (D) 23

52. If p + 3 = 9, then p is

(A) 12  (B) 6  (C) 3  (D) 27

53. If q/6 = 7, then q is

(A) 13  (B) 1/14  (C) 42  (D) 1/42

54. The power of the term $X^3Y^2 = 2$ is

(A) 3  (B) 2  (C) 12  (D) 7

55. Simplify: $- (2x) \times (2x+5)$

(A) $6X^2 + 10x$  (B) $6x + 10$  (C) 6-10X  (D) 6X-10

56. Find out product 2X, 4Y, 9Z

(A) 72xyz  (B) 73xyz  (C) 74xyz  (D) 70xyz

57. The factors of 3a + 21ab are

(A) ab, (3+2)  (B) 3, (a+7b)  (C) 3a, (1+7b)  (D) 3ab(a+b)

58. Find out product ab, bc, ca

(A) $a^2b^2c^2$  (B) $a^3b^3c^3$  (C) a, b, c  (D) $a^2b, c$

59. Find the GRD of the following.

(B)  (A) 25  (B) 35  (C) 15  (D) 20

60. CosØ =

(A) Adjacent side/hypotenuse.
(B) Opposite side/hypotenuse.

(C) Adjacent side/opposite side.

(D) Hypotenuse/opposite side.

61. \( \sec \theta = \square \)

(A) \( \frac{1}{\cos \theta} \)  (B) \( \frac{1}{\tan \theta} \)  (C) \( \frac{1}{\sin \theta} \)  (D) \( \frac{1}{\sec \theta} \)

62. \( \sin 30^\circ = \square \)

(A) 0  (B) \( \frac{1}{\sqrt{2}} \)  (C) \( \frac{\sqrt{3}}{2} \)  (D) \( \frac{1}{2} \)

63. \( \tan 45^\circ = \square \)

(A) 1  (B) \( \frac{1}{\sqrt{3}} \)  (C) \( \sqrt{3} \)  (D) Not defined

64. \( \sec 60^\circ = \square \)

(A) \( \sqrt{2} \)  (B) 2  (C) 1  (D) Not defined

65. Evaluate: \( \sin 45^\circ + \cos 45^\circ \)

(A) 1  (B) 5  (C) 8  (D) \( \sqrt{2} \)

66. \( \sin 60^\circ \tan 30^\circ \)

(A) 2  (B) 6  (C) 4  (D) \( \frac{1}{2} \)

67. Find the value of \( \theta \), if \( \sin \theta = 0 \)

(A) 45°  (B) 0°  (C) 60°  (D) 30°

68. Find the value of \( \theta \), if \( \tan \theta = \sqrt{3} \)

(A) 60°  (B) 45°  (C) 90°  (D) 0°

69. Evaluate: \( \tan 25^\circ \cos 65^\circ \)

(A) 1  (B) 2  (C) 6  (D) 8

70. The value of \( 2 \sin 30^\circ \cos 30^\circ \) is equal to

(A) \( \tan 30^\circ \)  (B) \( \cos 60^\circ \)  (C) \( \sin 60^\circ \)  (D) \( \cos 30^\circ \)
71. The value of sin60° - cos30°

(A) 0  (B) $\frac{1}{2}$  (C) $\frac{1}{\sqrt{2}}$  (D) $\frac{\sqrt{3}}{2}$

72. Perimeter of the square =

(A) 2 [length + breath]  (B) 4 × side
(C) sum of the sides  (D) sides × sides

73. Area of the rectangle

(A) 4a  (B) Sides × sides  (C) l × b  (D) l × b × h

74. Find the area of the rectangle field of length 15 m and breath 10 m

(A) 100  (B) $100m^2$  (C) $150m^2$  (D) 200 m

75. Find the area of square plot of length 40 m

(A) 1600 sq. m  (B) 1500 sq. m  (C) 1340 sq. m  (D) 1400 sq. m

76. The area of the rectangular garden 80 m long is 3000 sq. m, find the width of the garden

(A) 50 m  (B) 40 m  (C) 20 m  (D) 60 m

77. The height of a parallelogram whose area is $300 cm^2$ and base 15 cm is

(A) 10 cm  (B) 15 cm  (C) 20 cm  (D) 25 cm

78. The area of a parallelogram whose base is 20 cm and height is 30 cm

(A) 30 cm$^2$  (B) $400 cm^2$  (C) $50 cm^2$  (D) $600 cm^2$

79. The radius and length of arc of a sector are 10 cm and 15 cm respectively. Find its perimeter
80. Calculate the area of a sector whose radius and arc length are 6 cm and 20 cm respectively.
(A) 60 cm²  (B) 70 cm²  (C) 80 cm²  (D) 60 cm²

81. Find the volume of a cuboid whose dimensions are given by 11 m, 10 m and 7 m.
(A) 770 cu.m.  (B) 780 cu.m  (C) 800 cu.m  (D) 700 cu.m

82. If the diameter and height of a right circular cone are 12 cm and 8 cm respectively, then the slant height is
(A) 10 cm  (B) 20 cm  (C) 30 cm  (D) 96 cm

83. The ratios of the respective heights and the respective radii of two cylinders are 1:2 and 2:1 respectively. Then their respective volumes are in the ratio
(A) 4 : 1  (B) 1 : 4  (C) 2 : 1  (D) 1 : 2

84. The surface areas of two spheres are in the ratio of 9 : 25. Then their volumes are in the ratio
(A) 81 : 625  (B) 729 : 15625  (C) 27 : 75  (D) 27 : 125.

85. If the volume and the base area of a right circular cone are 48π cm³ and 12π cm² respectively, then the height of the cone is equal to
(A) 6 cm  (B) 8 cm  (C) 10 cm  (D) 12 cm

86. If the total surface area a solid right circular cylinder is 200 cm² and its radius is 5 cm, then the sum of its height and radius is
(A) 20 cm  (B) 25 cm  (C) 30 cm  (D) 15 cm

87. Two right circular cones have equal radii. If their slant heights are in the ratio 4 : 3, then their respective curved surface areas are in the ratio
(A) 16 : 9  (B) 8 : 6  (C) 4 : 3  (D) 3 : 4

88. Probability of sure events is
(A) 1  (B) 0  (C) 1/2  (D) 2

89. Which one can represent a probability of an event
(A) 7/4  (B) -1  (C) -2/3  (D) 2/3

90. Probability of impossible events is
91. \( P(E^1) \) is

(A) 1 - \( P(E) \)  
(B) \( P(E-1) \)  
(C) 1  
(D) 0

92. \( P(A) + P(\bar{A}) = \)

(A) 2  
(B) 3  
(C) 1  
(D) 4

93. If \( S \) is the sample space of a random experiment, then, \( P(S) = \)

(A) 0  
(B) 1/8  
(C) 1/2  
(D) 1

94. Let \( A \) and \( B \) be any two events and \( S \) be the corresponding sample space. Then

\( P(\bar{A} \cap B) = \)

(A) \( P(B) - (A \cap B) \)  
(B) \( P(A \cap B) - P(B) \)  
(C) \( P(S) \)  
(D) \( P[(A \cup B)] \)

95. If \( P \) is the probability of an event \( A \), then \( P \) satisfies.

(A) \( 0 < P < 1 \)  
(B) \( 0 \leq P \leq 1 \)  
(C) \( 0 \leq P < 1 \)  
(D) \( 0 < P \leq 1 \)

96. The probability that a student will score centum in mathematics is 4/5. The probability that he will not score centum is

(A) 1/5  
(B) 2/5  
(C) 3/5  
(D) 4/5

97. There are 6 defective items in a sample of 20 items. One item is drawn at random. The probability that it is a non-defective item is.

(A) 7/10  
(B) 0  
(C) 3/10  
(D) 2/3

98. Two dice are thrown simultaneously the Probability of getting a doublet is.

(A) 1/36  
(B) 1/3  
(C) 1/6  
(D) 2/3

99. Probability of getting 3 heads or 3 tails in tossing a coin 3 times is.

(A) 1/8  
(B) \( \frac{1}{4} \)  
(C) 3/8  
(D) \( \frac{1}{2} \)
100. The probability of selecting a queen of hearts when a card is drawn from a pack of 52 playing cards is.

(A) 1/52       (B) 16/52       (C) 1/13       (D) 1/26
# PILOT STUDY
## MATHEMATICAL PHOBIA SCALE

<table>
<thead>
<tr>
<th>S.No</th>
<th>Statements</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I feel easy for doing multiplication.</td>
<td></td>
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<tr>
<td>2</td>
<td>I solved easily the problems given through Venn diagram.</td>
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<tr>
<td>3</td>
<td>It is easy way to solve algebra.</td>
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<td>4</td>
<td>I find out the distance between two points easily</td>
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<td>5</td>
<td>I feel addition is easy.</td>
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<td>6</td>
<td>It is easy to calculate the ratio of right angle triangle through Pythagoras theorem.</td>
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<tr>
<td>7</td>
<td>It is easy to memorize the dimensional formula.</td>
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<td>8</td>
<td>It is easy to draw the geometry accurately.</td>
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<tr>
<td>9</td>
<td>It is easy to measure the central tendency in statistics.</td>
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<tr>
<td>10</td>
<td>The mathematics text book induce eagerness in me.</td>
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<tr>
<td>11</td>
<td>I feel difficulty in doing subtraction.</td>
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<tr>
<td>12</td>
<td>I come across complications while doing division problems.</td>
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<tr>
<td>13</td>
<td>I am getting nervous while handling with rational numbers.</td>
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<tr>
<td>14</td>
<td>It is difficult for me to convert certain numbers into rational numbers.</td>
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<tr>
<td>15</td>
<td>It is difficult to locate irrational numbers line.</td>
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<tr>
<td>16</td>
<td>It is difficult for me to find out the decimal expansion of square roots.</td>
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<tr>
<td>17</td>
<td>It is difficult to memorize the square root formula.</td>
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<tr>
<td>18</td>
<td>It is complication for me to use logarithm table.</td>
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<tr>
<td>19</td>
<td>I feel that I commit mistakes while subtracting using the method of substitution of direct linear equation.</td>
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<tr>
<td>20</td>
<td>Probability problems confuses me.</td>
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<td>21</td>
<td>I hope that I can learn the mathematics skills.</td>
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<td>22</td>
<td>I feel that mathematics is useful in great measures in day to day life.</td>
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<td>23</td>
<td>I think mathematics increases thinking pattern.</td>
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<td>24</td>
<td>I think it is difficult to solve the mathematics complications by understanding.</td>
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<td>25</td>
<td>I think it is easy to understand mathematics.</td>
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<td>26</td>
<td>I hope mathematics will be very useful in future.</td>
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<td>27</td>
<td>I feel mathematics has more impact in society.</td>
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<td>28</td>
<td>Problem solving stimulates mind to think.</td>
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<td>29</td>
<td>I think mathematics may play a vital role in our future.</td>
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<td>30</td>
<td>Mathematics is easy when I involve with full participation.</td>
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<td>31</td>
<td>I have doubt, Is there any easy way to understand mathematics.</td>
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<td>32</td>
<td>Mathematics is the peculiar threatening subject.</td>
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<td>33</td>
<td>Mathematics is a essential subject for all of us.</td>
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<td>34</td>
<td>I feel mathematics hinders me.</td>
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<td>35</td>
<td>I got a poor experience from mathematics.</td>
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<td>36</td>
<td>I have a fear that I may damage the mathematics related things while using them.</td>
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<td>37</td>
<td>I hesitate to do mathematics as I Hel that have a fear of committing mistakes.</td>
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<td>38</td>
<td>I feel nervous while doing mathematics.</td>
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<td>39</td>
<td>I Feel that mathematics causes mental stress to me.</td>
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<td>40</td>
<td>As I dislike mathematics ,I get afraid to learn mathematics.</td>
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<td>41</td>
<td>My mathematics teacher encourage me because I submitted homework at right time.</td>
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<td>42</td>
<td>I develop interest in mathematics as my mathematics teacher teach mathematics by giving simple practical examples.</td>
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<td>43</td>
<td>The short notes given by my mathematics teacher is more useful for me.</td>
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<td>44</td>
<td>I think my mathematics teacher teach mathematics in understanding method.</td>
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<td>45</td>
<td>Methods of solving the problem followed by my mathematics teacher is more helpful for me to understand.</td>
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<td>46</td>
<td>My mathematics teacher teaches me in questioning often.</td>
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<td>47</td>
<td>I am not able to follow my mathematics teacher, because the fast teaching and writing in the blackboard.</td>
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<td>48</td>
<td>More homework given by my mathematics teacher is burden for me.</td>
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<td>49</td>
<td>I am frustrated as my mathematics teacher compare me with others.</td>
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<td>50</td>
<td>I feel tension when my mathematics teacher keep on conducting special classes.</td>
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<td>51</td>
<td>My parents encourage me as they learnt mathematics.</td>
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<td>52</td>
<td>My parents are role model for me in learning mathematics.</td>
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<td>53</td>
<td>My parents helping me in developing mathematics skills by providing natural nutritious foods.</td>
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<tr>
<td>54</td>
<td>My parents used to know my mathematics skills by enquiring with my mathematics teacher.</td>
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<tr>
<td>55</td>
<td>My parents help me in developing interest in mathematics my way of making me to maintain the budget.</td>
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<td>56</td>
<td>As my parents make me interested in sports, the interest in mathematics decrease.</td>
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<td>57</td>
<td>I think that my parents compel me to show interest in mathematics subject.</td>
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<td>58</td>
<td>I think that the village students get lesser mark in mathematics.</td>
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<td>59</td>
<td>My parents feel that I would not pass in mathematics.</td>
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<td>60</td>
<td>While I am doing homework my parents are not able to clear my doubts.</td>
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<td>61</td>
<td>When I discuss mathematics with my friends, the unity develops among to.</td>
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<tr>
<td>62</td>
<td>My friends encourage me learn of mathematics.</td>
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<tr>
<td>63</td>
<td>My friends will teach the shortcut methods to learn mathematics.</td>
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<td>64</td>
<td>My friends make me to be interested in mathematics by explaining activities of mathematics during holidays and day to day routines.</td>
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<tr>
<td>65</td>
<td>While my friends getting higher marks in</td>
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</table>


Though I do mathematics correctly my friends tease as it is wrong.

During the mathematics period my friends disturb me.

As my friends learn mathematics special classes without going to school, I too feel that I am unable to go for special class.

As my friends behave indecently during mathematics exam my interest in mathematics is diminished.

As my friends say mathematics subject is tough, I too feel as mathematics subject is hard.
Dear Students,

I am pursuing Ph.D Degree in Education in the Department of Education, Annamalai University. Regarding my research work I need certain information. Hence I very kindly request you to fill in the following Proforma and put a (✓) mark as per the instruction given in each research tools. This information provided by you will be used only for the purpose of research and kept confidential. You kind cooperation is solicited.

Thanking you

Yours faithfully

M.RAMACHANDRAN
PROFORMA

This proforma contains some details about secondary students. Please (✓) in the relevant category.

**Gender**: [(i) Male (ii) Female]

**Locality of schools**: [(i) Rural (ii) Urban]

**Type of managements**: [(i) Government (ii) Self finance (iii) Aided]

**Religions**: [(i) Hindu (ii) Christian (iii) Muslim]

**Type of families**: [(i) Joint (ii) Nuclear]

**Parents’ educational qualifications**: [(i) Illiterate (ii) School education (iii) College education]

**Parents’ occupations**: [(i) Coolie (ii) Government (iii) Private]

**Parents’ annual income**: [(i) Below ₹36000 (ii) Between ₹36001-₹72000 (iii) Above ₹72001]
21. If \( I = \{4, \{4,5\}, 6\} \), which of the following is correct?

- (B) \( \{4,5\} \in A \)
- (B) \( \{4\} \in A \)
- (C) \( \{6\} \in A \)
- (D) \( \{5\} \in A \)

22. If \( X = \{b, \{c,d\}, e\} \) which of the following is a subset of \( X \)?

- (B) \( \{b, c\} \)
- (B) \( \{c, d\} \)
- (C) \( \{d, e\} \)
- (D) \( \{b, e\} \)

23. If a finite set \( A \) has \( m \) elements, then the number of non-empty proper subset of \( A \) is ...

- (B) \( 2^m \)
- (B) \( 2^{m-1} \)
- (C) \( 2^{m-1} \)
- (D) \( 2(2^{m-1}-1) \)

24. The number of subset of the set \( \{10, 11, 12\} \) is

- (B) 3
- (B) 8
- (C) 6
- (D) 7

25. The number of subsets of a set with \( m \) elements is ...

- (A) \( 2^m \)
- (B) \( m^2 \)
- (C) \( 2^{m-1} \)
- (D) \( m - 1^2 \)

26. Find the number of subsets \( A = \{3, 4, 5, 6, 7\} \) ...

- (B) 36
- (B) 34
- (C) 32
- (D) 30

27. Let \( U = \{a, b, c, d, e, f, g, h\} \) and \( A = \{b, d, g, h\} \), then \( A^1 = \)

- (B) \( \{a, c, e, f\} \)
- (B) \( \{c, e, f\} \)
- (C) \( \{a, e, f\} \)
- (D) \( A \cap \{a, c, e, f, g\} \)

28. Let \( A = \{a, b, c, d, e\} \) and \( B = \{a, d, e, f\} \), \( A \cap B = \)

- (B) \( \{a, d, e\} \)
- (B) \( \{a, d, c, e\} \)
- (C) \( \{a, c, e\} \)
- (D) \( \{a, d, b\} \)

29. Which one of the following is correct?

- (E) Every subset of a finite set is finite.
- (F) \( P = \{x: x - 8 = -8\} \) is a singleton set
- (G) Every set has a proper set
- (H) Every non-empty set has at least two subsets and the set itself.

30. If \( A \) is a proper subset of \( B \), then \( A \cap B = \)
31. A set which is not finite is called an…..

   (B) Finite set (B) infinite set (C) sub set (D) cardinality

32. A∩ (B∪C) =

   (B) (A∩B)∪(A∩C) (B) (A∪B)∩(A∪C) (C) B∪A (D) B∩A

33. If n [P (A)] = 64 then n (A) is….

   (B) 6 (B) 8 (C) 4 (D) 5

34. If A⊂B then A∩B is…

   (B) B (B) A\B (C) A (D) B\A

35. Decimal form of -3/4 is

   (A) –0.75 (B) –0.50 (C) –0.25 (D) –0.125

36. The form of 0. \(\frac{3}{7}\) is

   (B) 1/7 (B) 2/7 (C) 1/3 (D) 2/3

37. Which one of the following is not true?

   (A) Every natural number is a rational number
   (B) Every real number is a rational number
   (C) Every whole number is a rational number
   (D) Every integer is a rational number.

38. Which one of the following has a terminating decimal expansion?

   (A) 5/32 (B) 7/9 (C) 8/15 (D) 1/12

39. Which one of the following is an irrational number?

   (A) π (B) \(\sqrt{5}\) (C) 1/4 (D) 1/5

40. Which of the following are irrational numbers?
41. The simplest form of $\sqrt{50}$ is

- (A) $(ii),(iii)$ and $(iv)$
- (B) $(i),(ii)$ and $(iv)$
- (C) $(i),(ii)$ and $(iii)$
- (D) $(i),(iii)$ and $(iv)$

22. $\sqrt[5]{11}$ is equal to

- (A) $\sqrt[5]{11^2}$
- (B) $\sqrt[5]{11^4}$
- (C) $\sqrt[5]{11^5}$
- (D) $\sqrt[5]{11^6}$

23. Find the common difference of the A.P. 125, 120, 115, 110……

- (A) 5
- (B) 8
- (C) -8
- (D) -5

24. Find the 17th term of the A.P. 4, 9, 14……

- (A) 55
- (B) -55
- (C) 45
- (D) 84

25. Which of the following sequence are geometric sequence.

- (A) 5, 10, 15, 20…
- (B) 0.15, 0.015, 0.0015
- (C) 20, 15, 25, 20
- (D) 0.2, 0.4, 0.1…

26. Find the 8th term of the sequence 1, 1, 2, 3, 5, 8……is

- (A) 25
- (B) 24
- (C) 33
- (D) 21

27. If $a, b, c$ are in G.P. then $a-b/b-c$ is equal to

- (A) $a/b$
- (B) $b/c$
- (C) $a/c$
- (D) $c/b$

28. One half of the sum of numbers $a$ and $b$

- (A) $1/2(a+b)$
- (B) $1/2 a+b$
- (C) $1/2(a-b)$
- (D) $1/2a+b$

29. Solve $3P + 4 = 25$

- (A) 7
- (B) 8
- (C) 9
- (D) 10

30. A number when added to 60 gives 75 what is the number

- (A) 15
- (B) 20
- (C) 25
- (D) 30
31. Thendral’s age is 3 times less than that of revathi, if thendral’s age is 18, what is revathi’s age?

(A) 20  (B) 21  (C) 22  (D) 23

32. The power of the term \(x^3y^2\) is 2 is

(A) 3  (B) 2  (C) 12  (D) 7

33. Simplify: \(-(2x) \times (2x+5)\)

(A) \(6x^2+10x\)  (B) \(6x+10\)  (C) \(6-10x\)  (D) \(6x-10\)

34. Find out product \(a, b, c\)

(C) \(a^2b^2c^2\)  (B) \(a^3b^3c^3\)  (C) \(a, b, c\)  (D) \(a^2, b, c\)

35. \(\cos\theta =\)

(E) Adjacent side/hypotenuse.
(F) Opposite side/hypotenuse.
(G) Adjacent side/opposite side.
(H) Hypotenuse/opposite side.

36. \(\sin 30^\circ =\)

(B) 0  (B) \(1/\sqrt{2}\)  (C) \(\sqrt{3}/2\)  (C) 1/2

37. \(\tan 45^\circ =\)

(B) 1  (B) \(1/\sqrt{3}\)  (C) \(\sqrt{3}\)  (D) Not defined

38. \(\sec 60^\circ =\)

(A) \(\sqrt{2}\)  (B) 2  (C) 1  (D) Not defined

39. \(\sin 60^\circ \tan 30^\circ =\)
40. Find the value of $\theta$, if $\sin \theta = 0$

(A) $45^\circ$    (B) $0^\circ$    (C) $60^\circ$    (D) $30^\circ$

41. Find the value of $\theta$, if $\tan \theta = \sqrt{3}$

(A) $60^\circ$    (B) $45^\circ$    (C) $90^\circ$    (D) $0^\circ$

42. Evaluate: $\tan 25^\circ/\cos 65^\circ$

(B) 1    (B) 2    (C) 6    (D) 8

43. Perimeter of the square =

(A) 2 [length + breath]    (B) 4× side    (C) sum of the sides    (D) sides × sides

44. Find the area of the rectangle field of length 15 m and breadth 10 m

(A) 100    (B) $100m^2$    (C) $150m^2$    (D) 200m

45. Find the area of square plot of length 40 m

(A) 1600 sq. m    (B) 1500 sq. m    (C) 1340 sq. m    (D) 1400 sq. m

46. The area of the rectangular garden 80 m long is 3000 sq. m, find the width of the garden

(A) 50 m    (B) 40 m    (C) 20 m    (D) 60

47. The area of a parallelogram whose base is 20 cm and height is 30 cm

(A) 30 cm    (B) $400cm^2$    (C) $50cm^2$    (D) $600cm^2$

48. The radius and length of arc of a sector are 10 cm and 15 cm respectively. Find its perimeter

(A) 35 cm    (B) 30 cm    (C) 40 cm    (D) 50 cm

49. Find the volume of a cuboid whose dimensions are given by 11 m, 10 m and 7 m.
50. If the diameter and height of a right circular cone are 12 cm and 8 cm respectively, then the slant height is
   (B) 10 cm   (C) 20 cm   (D) 30 cm   (D) 96 cm

51. The surface areas of two spheres are in the ratio of 9 : 25. Then their volumes are in the ratio
   (A) 81 : 625   (B) 729 : 15625   (C) 27 : 75   (D) 27 : 125

52. If the total surface area a solid right circular cylinder is 200 cm$^2$ and its radius is 5 cm, then the sum of its height and radius is
   (B) 20 cm   (C) 25 cm   (C) 30 cm   (D) 15 cm

53. Two right circular cones have equal radii. If their slant heights are in the ratio 4 : 3, then their respective curved surface areas are in the ratio
   (A) 16 : 9   (B) 8 : 6   (C) 4 : 3   (D) 3 : 4

54. Which one can represent a probability of an event
   (A) 7/4   (B) -1   (C) -2/3   (D) 2/3

55. Probability of impossible events is
   (A) 1   (B) 0   (C) 1/2   (D) -1

56. $P(E^c)$ is
   (A) 1 - $P(E)$   (B) $P(E)$   (C) 1   (D) 0

57. If $S$ is the sample space of a random experiment, then $P(S) =$
   (A) 0   (B) 1/8   (C) 1/2   (D) 1

58. Let $A$ and $B$ be any two events and $S$ be the corresponding sample space. Then
   $P(A \cap B) =$
   (A) $P(B) - (A \cap B)$   (B) $P(A \cap B) - P(B)$   (C) $P(S)$   (D) $P[(A \cup B)]$

59. If $P$ is the probability of an event $A$, then $P$ satisfies.
60. The probability that a student will score centum in mathematics is \( \frac{4}{5} \). The probability that he will not score centum is

(A) \( \frac{1}{5} \) (B) \( \frac{2}{5} \) (C) \( \frac{3}{5} \) (D) \( \frac{4}{5} \)

61. There are 6 defective items in a sample of 20 items. One item is drawn at random. The probability that it is a non-defective item is.

(A) \( \frac{7}{10} \) (B) 0 (C) \( \frac{3}{10} \) (D) \( \frac{2}{3} \)

62. Two dice are thrown simultaneously the probability of getting a doublet is.

(A) \( \frac{1}{36} \) (B) \( \frac{1}{3} \) (c) \( \frac{1}{6} \) (D) \( \frac{2}{3} \)

63. The probability of selecting a queen of hearts when a card is drawn from a pack of 52 playing cards is.

(A) \( \frac{1}{52} \) (B) \( \frac{16}{52} \) (C) \( \frac{1}{13} \) (D) \( \frac{1}{26} \)
<table>
<thead>
<tr>
<th>S.No</th>
<th>STATEMENTS</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I Feel easy for doing multiplication.</td>
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<td>2.</td>
<td>I Find out the distance between two points easily</td>
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<td>3.</td>
<td>I feel addition is easy.</td>
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<td>4.</td>
<td>It is easy to calculate the ratio of right angle triangle through Pythagoras theorem.</td>
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<td>5.</td>
<td>It is easy to draw the geometry accurately.</td>
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<td>6.</td>
<td>The mathematics text book induce eagerness in me.</td>
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<td>7.</td>
<td>I come across complications while doing division problems.</td>
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<td>8.</td>
<td>I am getting nervous while handling with rational numbers.</td>
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<td>9.</td>
<td>It is difficult to locate irrational numbers line.</td>
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<td>10.</td>
<td>It is difficult for me to find out the decimal expansion of square roots.</td>
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<td>11.</td>
<td>I feel that I commit mistakes while subtracting using the method of substitution of direct linear equation.</td>
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<td>12.</td>
<td>Probability problems confuses me.</td>
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<td>13.</td>
<td>I hope that I can learn the mathematics skills.</td>
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<tr>
<td>14.</td>
<td>I feel that mathematics is useful in great measures in day to day life.</td>
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<td>15.</td>
<td>I think mathematics increases thinking pattern.</td>
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<tr>
<td>16.</td>
<td>I think it is easy to understand mathematics.</td>
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<td>17.</td>
<td>I feel mathematics has more impact in society.</td>
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<tr>
<td>18.</td>
<td>Problem solving stimulates mind to think.</td>
<td></td>
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<td>19.</td>
<td>I have doubt, Is there any easy way to understand</td>
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</table>
20. Mathematics is the peculiar threatening subject.

21. Mathematics is an essential subject for all of us.

22. I feel mathematics hinders me.

23. I got a poor experience from mathematics.

24. I have a fear that I may damage the mathematics related things while using them.

25. I hesitate to do mathematics as I feel that I have a fear of committing mistakes.

26. I feel nervous while doing mathematics.

27. As I dislike mathematics, I get afraid to learn mathematics.

28. Methods of solving the problem followed by my mathematics teacher is more helpful for me to understand.

29. My mathematics teacher teaches me in questioning often.

30. I am not able to follow my mathematics teacher, because the fast teaching and writing in the blackboard.

31. More homework given by my mathematics teacher is burden for me.

32. I am frustrated as my mathematics teacher compare me with others.

33. I feel tension when my mathematics teacher keep on conducting special classes.

34. My parents helping me in developing mathematics skills by providing natural nutritious foods.

35. As my parents make me interested in sports, the interest in mathematics decrease.

36. I think that my parents compel me to show interest in mathematics subject.

37. I think that the village students get lesser mark in mathematics.

38. My parents feel that I would not pass in mathematics.
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<tbody>
<tr>
<td>39.</td>
<td>While I am doing homework my parents are not able to clear my doubts.</td>
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<tr>
<td>40.</td>
<td>My friends encourage me to learn of mathematics.</td>
</tr>
<tr>
<td>41.</td>
<td>My friends make me to be interested in mathematics by explaining activities of mathematics during holidays and day to day routines.</td>
</tr>
<tr>
<td>42.</td>
<td>Though I do mathematics correctly my friends tease as it is wrong.</td>
</tr>
<tr>
<td>43.</td>
<td>During the mathematics period my friends disturb me.</td>
</tr>
<tr>
<td>44.</td>
<td>As my friends learn mathematics special classes without going to school, I too feel that I am unable to go for special class.</td>
</tr>
<tr>
<td>45.</td>
<td>As my friends behave indecently during mathematics exam my interest in mathematics is diminished.</td>
</tr>
<tr>
<td>46.</td>
<td>As my friends say mathematics subject is tough, I too feel as mathematics subject is hard.</td>
</tr>
<tr>
<td>S.No</td>
<td>Statement</td>
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<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>I find working with problems very easy</td>
</tr>
<tr>
<td>2</td>
<td>I am very unsure of my abilities to solve problems</td>
</tr>
<tr>
<td>3</td>
<td>Problems frighten me</td>
</tr>
<tr>
<td>4</td>
<td>I enjoy working with problems</td>
</tr>
<tr>
<td>5</td>
<td>I seem to have difficulties with most of the problems I have tried to use.</td>
</tr>
<tr>
<td>6</td>
<td>I am very confident in my abilities to solve problems</td>
</tr>
<tr>
<td>7</td>
<td>At times I find working with problems very confusing.</td>
</tr>
<tr>
<td>8</td>
<td>Solving problems is something I rarely enjoy</td>
</tr>
<tr>
<td>9</td>
<td>In trying new kind of problems, I consider myself a skilled person</td>
</tr>
<tr>
<td>10</td>
<td>I will solve mathematical puzzles interestingly</td>
</tr>
<tr>
<td>11</td>
<td>I can think logically and wisely to arrive at a solution</td>
</tr>
<tr>
<td>12</td>
<td>I can think of solving problems quickly and in a timely manner</td>
</tr>
<tr>
<td>13</td>
<td>I have healthy mindset to approach new kind of problems</td>
</tr>
<tr>
<td>14</td>
<td>I can always manage to solve difficult problems if I try hard enough</td>
</tr>
<tr>
<td>15</td>
<td>I am certain that I can arrive at correct solutions</td>
</tr>
<tr>
<td>16</td>
<td>I can solve most problems if I invest the necessary effort</td>
</tr>
<tr>
<td>17</td>
<td>I remain calm in solving all problems, because I rely on my coping abilities</td>
</tr>
<tr>
<td>18</td>
<td>For problems, I can find several types of solutions</td>
</tr>
<tr>
<td>19</td>
<td>I can handle any kind of problems</td>
</tr>
<tr>
<td></td>
<td>Statement</td>
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<td>--------------------------------------------------------------------------</td>
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<tr>
<td>20</td>
<td>I don’t feel discomfort for trying any type of problem that have complication</td>
</tr>
<tr>
<td>21</td>
<td>I avoid trying most difficult and new types of problems</td>
</tr>
<tr>
<td>22</td>
<td>I am unable to understand mathematics taught by the teacher</td>
</tr>
<tr>
<td>23</td>
<td>I can be an efficient person, for all the mathematical skills that are taught to me</td>
</tr>
<tr>
<td>24</td>
<td>For mathematics I work as hard as possible, I can</td>
</tr>
<tr>
<td>25</td>
<td>I easily learn difficult mathematics</td>
</tr>
<tr>
<td>26</td>
<td>I don’t like mathematics work that engages my brain continuously</td>
</tr>
<tr>
<td>27</td>
<td>Truly, if there is a need for learning new problems, I can</td>
</tr>
<tr>
<td>28</td>
<td>I do excellent jobs on assignments and exams</td>
</tr>
<tr>
<td>29</td>
<td>Even if the subject matter are difficult, I keep working continuously</td>
</tr>
<tr>
<td>30</td>
<td>I can understand the most difficult subject matter offered to me</td>
</tr>
<tr>
<td>31</td>
<td>While solving problems, I get scared that I may go wrong</td>
</tr>
<tr>
<td>32</td>
<td>Mathematics is the most complicated matter for me</td>
</tr>
<tr>
<td>33</td>
<td>If there is confusion in solving problems, I can find the ways and means for solving it.</td>
</tr>
<tr>
<td>34</td>
<td>I can definitely understand mathematics</td>
</tr>
<tr>
<td>35</td>
<td>Mathematics is always very difficult subject for me</td>
</tr>
<tr>
<td>36</td>
<td>I cannot do well in mathematics</td>
</tr>
<tr>
<td>37</td>
<td>I believe I could handle more difficult maths</td>
</tr>
<tr>
<td>38</td>
<td>Most subjects I can handle, but I just can’t do a good job with maths</td>
</tr>
<tr>
<td>39</td>
<td>I know I can do well in maths</td>
</tr>
<tr>
<td>40</td>
<td>I can solve maths problems without any difficulty</td>
</tr>
<tr>
<td>Family acceptance scale</td>
<td>Always</td>
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<td>-----------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>1. My parents try to fulfil all my reasonable necessities.</td>
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<td>2. My parents hear all my complaints carefully.</td>
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<td>3. My parents always fulfil all promises given by them.</td>
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<td>4. My parents clear all my doubts.</td>
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<td>5. I can co-operate with my brothers and sisters.</td>
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<tr>
<td>6. My parents quarrel between themselves.</td>
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<td>7. My parents are hindrance to bring my friends to my home.</td>
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<tr>
<td>8. I eat my food along with my parents.</td>
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<tr>
<td>9. I sit joking and playing with my parents.</td>
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<td>10. My parents used to buy new dresses for me on special occasions.</td>
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<tr>
<td>11. My parents feel proud of, on my victory.</td>
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<tr>
<td>12. My parents used to scold me in the presence of others.</td>
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<tr>
<td>13. My parents used to give advice personally when they find fault with me.</td>
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<tr>
<td>14. I feel that I am not getting enough care at home.</td>
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<tr>
<td>15. I feel that my friends are having a happier family</td>
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</tbody>
</table>
environment than myself.

16. I feel that I am burden to my parents.

17. My parents allow me to discuss my problems with them.

18. My parents used to compare me with others and find fault with me.

19. My parents used to consider my suggestions while finding solutions to my family problems.

20. My parents allow me to participate in any games which I like.

21. My parents encourage me to participate in all art festivals.

22. My parents encourage me to participate in all competitions.

23. My parents encourage me to make use of my leisure time in any entertainment.

24. My parents allow me to go for excursion.

25. My parents encourage me to read other books and magazines besides text books to improve my knowledge.

26. My parents allow me to dress in my own fashion.

27. My parents control me too much.

28. My parents interfere in my choice to select my friends.

29. My parents encourage me to get into conversation with visitors.

30. My parents give me the freedom to conduct activities on
31. My parents decide my hours of study.
32. My parents compel me to obey them even for illogical reasons.
33. My parents decide my choice of subject of study at the college.
34. My parents always harass me to study.
35. My parents give their suggestions for my future career.
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