APPENDICES
PASSALONG TEST

MANUAL

NOTE: This is a reprint of an article in the British Journal of Psychology, (Vol. 33 pp. 52–63) by W. Q. Alexander who first suggested this test.

Later on in his "Intelligence concrete and abstract" published by the Cambridge Press, W. P. Alexander described a Performance Scale of only three tests namely – (1) Passalong Block Design and (3) Cube Construction. The scoring of the Passalong test in this scale finely graded for timing and has been mentioned therein as a second method of scoring. The norm the combined score of all the three tests.

Recently Boris Someonoff and Eric Trist have included this test in a scale which they have in their – "Diagnostic Performance Tests" published by the Tavistock Publications in 1958. The while scoring the test not only take time into consideration but moves and speed as well. Their book mentioned percentile norms also. They mention it as the revised Passalong Test.

The usual rules for testing regarding the establishment of rapport between subject and so on, are to be applied. The most convenient method is to have a small table, with seated on one side and the examiner on the other. The table should be such that when the seated the table surface is about level with his waist so that his arms can rest comfortably on it. During the administration of the series of tests care should be taken on two points in particular: First, be careful that two different diagrams are not visible to the subject simultaneously, since a look at a previous diagram when working at a test may vitiate the result.

Second, be careful that the subject does not see any box being prepared for use. The box be placed before the subject as the starting time of the sub-test is recorded.

After rapport has been established and such particulars noted regarding age, school, etc. may be required, place box No. 1 before the subject with the red end away from him and the diagram No. 1 where it is easily seen during the work. The diagram should also have the red end away from the subject. Explain that blocks can be moved within the box and illustrate by moving the blue block to side. Draw attention of the subject to the fact that in the box the red block is at the blue end, while in the picture the red block is at the red end and the blue block is at the blue end. Tell him that you want him to move the red block to the red end of the box so as to make it the same as the picture pointing to the picture when necessary. Any words may be used to convey the subject. This initial test is in the nature of preparation and may in an extreme case be demonstrated by words, e.g., "YOU SEE THE FOX. THE BLOCKS CAN BE MOVED IN IT. (DEMONSTRATE) NOW YOU SEE THAT THE RED BLOCK IS AT THE BLUE END, THE BLUE BLOCKS ARE AT THE RED END. I WANT YOU TO MOVE THE RED BLOCK TO THE RED END SO AS TO MAKE IT THE SAME AS THE PICTURE (Point). GO AHEAD AS QUICKLY AS YOU CAN." Time the performance by means of a stop watch. The test is not intended when the red block is at the red end and the blue blocks as shown in the picture. The exact position of the blue block at the red end is of no importance. Though in later test the position of the blue block at the red end is important and must be shown in the diagram (of tests 8 and 9.)

On completion of test No. 1 proceed to test No. 2 placing box and diagram as before.
As each test is completed note the time carefully. Go ahead till the subject fails to complete the test in the time limit allowed (see scoring). When failure occurs, replace the blocks in the starting position and tell the subject to watch carefully. Demonstrate the test and always begin by moving the red block towards the right hand of the subject. After the demonstration proceed to the NEXT test. Go ahead till the subject fails on two successive tests. When this occurs, or alternatively when test 9 is completed, the whole task is finished. In giving test 8 and 9 it is necessary to draw the attention of the subject to the position of the small blue blocks in the box and in the picture. Thus you may say: "You see where the small blue blocks are this time. See where they have to be at the finish (pointing to the picture). Now go ahead and move the red one to the red end the same as in the picture." The subject should be warned at the start that the block must not be lifted out of the box. If at any time he attempts to lift them out, stop him and tell him that he must be moved inside the box. This is a rare occurrence except with very young children. Where a subject tries to turn a block by extreme pressure, say: You don't need any strength. It moves quite easily when you make room for it... (The comment is merely to indicate that pressure is unnecessary.) If the subject persists, leave him alone so long as no damage is being done (and that is scarcely possible) since it indicates lack of intelligence, and he is merely wasting valuable time.

Apart from these special occasions, make no comment whatever during the progress of a test since comment may vitiate the test result. On the completion of a test, a word of encouragement is desirable to ensure maximum effort, though the fact is that the material and the problem are in almost every case, such interest that the subject has started before the examiner has time to say anything. It would appear that there is an interest called out quite spontaneously by the materials. The bright colours and the definiteness of the goal to be reached create that state of interested striving in which good results are easily obtained for that reason, any intelligent person can give the tests quite successfully, though it still remains true that a competent psychologist will obtain more information by watching the subject at work than the untrained examiner and further, the interpretation of the test result is better left to one experienced psychological testing.

Special Instruction for Testing Deaf Cases.

The instructions which have been given above hold for deaf children except on two points. The first one is that since language cannot be used we require to convey the same instructions to the subject by the use of signs instead of words. This is very easy except in the case of the initial test. In order to make the subject quite certain of his task at this stage, we make a slight modification. In the case of test No. 1 we use signs liberally to indicate that we want to move the red block to the red end to make it the same as in the picture. When we have indicated what we want to do we then demonstrate box No. 1. The demonstration should be done slowly and at the end examiner points to the box and to the picture showing that they are now the same. Replace the block and sign to the subject to proceed. If he succeeds, go ahead to test 2 and use signs again to indicate what is wanted, viz., the red blocks to the red end to make it the same picture. It will be found that the subject readily understands since the picture makes instruction almost unnecessary. Therefore proceed with the other boxes, scoring as indicated below. Just exactly the same as for hearing children. Should the subject fail on the initial test, repeat the demonstration till he succeeds and score the full two points when that success does come. Thus with deaf subjects, the score of on box No. 1 is always allowed. This is to make the norms for hearing and deaf children more likely be the same. In boxes 8 and 9 point carefully to the position of the small blue blocks in the box and then to their position in the picture then point to the red blocks in both cases and mention the subject go ahead. In every case point to the red block in the box and then to the red block in the picture before mentioning the subject to go ahead.
Apart from these points, there is no alteration in the method of administration. The fact is that ge is largely unnecessary in giving the test. We use it with hearing children because not to do so create an entirely wrong atmosphere for testing.

Apart from box No. 1, in which all deaf cases score full points, the method of scoring is the same for all cases—hearing and deaf.

If any point arises with deaf, cases which present difficulty the author will be greatly obliged if miner communicates with him so that such a difficulty may be dealt with and the result passed on to those using the test.

The author does not have sufficient results to set up special norms for deaf cases, but in view of results obtained by Drever and Collins it seems not unreasonable to suggest that norms given below for cases should be utilised for deaf cases. The author will be particularly grateful if those using the test with deaf cases care to let him have the results in order that in the future norms for deaf cases may be bed separately should these prove necessary.

**SCORING THE TEST**

Two methods of scoring the tests are given. The first is that which was first published and which proved quite satisfactory in practice. The second takes a more careful account of time and is the one which should be adopted where the test is to be used as one of the scale of three tests for which the author has published norms in Intelligence, Concrete and Abstract. (Intelligence, Concrete and Abstract, W. P. Alexander, Cambridge University Press)

**SCORING METHOD I**

<table>
<thead>
<tr>
<th>Sub-test or Box No.</th>
<th>Time Limit</th>
<th>Full Score</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 Mins.</td>
<td>2</td>
<td>1 for every minute or part thereof more than 1 min</td>
</tr>
<tr>
<td>2</td>
<td>2 Mins.</td>
<td>3</td>
<td>1 for every 30 secs, or part thereof more than 1 min</td>
</tr>
<tr>
<td>3</td>
<td>3 Mins.</td>
<td>5</td>
<td>As above</td>
</tr>
<tr>
<td>4</td>
<td>3 Mins.</td>
<td>5</td>
<td>As above</td>
</tr>
<tr>
<td>5</td>
<td>3 Mins.</td>
<td>5</td>
<td>As above</td>
</tr>
<tr>
<td>6</td>
<td>3 Mins.</td>
<td>5</td>
<td>As above</td>
</tr>
<tr>
<td>7</td>
<td>3 Mins.</td>
<td>5</td>
<td>As above</td>
</tr>
<tr>
<td>8</td>
<td>4 Mins.</td>
<td>7</td>
<td>1 for every 30 secs, or part thereof more than 1 min</td>
</tr>
<tr>
<td>9</td>
<td>5 Mins.</td>
<td>8</td>
<td>1 for every 30 secs or part thereof more than 2 mins</td>
</tr>
</tbody>
</table>

Possible Score-45

It is recommended that the second method of scoring be generally adopted though the first is still included in this booklet as being quite a useful one.

In administering the test the time should be noted in seconds. The administration of the test is the same for both methods of scoring. In all cases where the subject fails on a sub-test the score is nil for that test, and where success is achieved within the total time limit the score depends upon the time taken.

To simplify scoring, a table is given below which, according to the time taken, enables the score to be determined by inspection.

**SCORE TABLE FOR REFERENCE**  
( **Method I** )

<table>
<thead>
<tr>
<th>Sub-test or Box No.</th>
<th>Time taken (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3, 4, 5, 6, 7</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>
NORMS OF PERFORMANCE FOR METHOD I

NORMS OF performance previously published for the first method have proved to be valid and are repeated here, with extension to higher ages.

### AGE NORMS FOR METHOD I

<table>
<thead>
<tr>
<th>Age in Year</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 month</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>6</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>37</td>
</tr>
<tr>
<td>6</td>
<td>43</td>
</tr>
<tr>
<td>6</td>
<td>42</td>
</tr>
</tbody>
</table>

Calculating IQ as all persons over the age of 16 are to be presumed to be 16. Thus, an adult scoring 36 would have a mental age of 17 and his IQ (performance) would be $IQ = 1063$. 
Appendix 3

SECTION - A

NUMERICAL ABILITY TEST

1. \( 75 - 3.5 = \)
   a) 6.25  b) 4.5  c) 3.64  d) 2.5  e) 25

2. \( 0.0087 \times 3798 = ? \)
   a) 31.25  b) 33.0426  c) 330.426  d) 330.426  e) 330.426

3. \( 25 + 40 \times 55 = ? \)
   a) 3475  b) 1008  c) 36  d) 18  e) 18

4. \( 9072 \div ? = 7 \)
   a) 12  b) 90862  c) 9052  d) 9062  e) 9052

5. \( 25 + 40 = ? \)
   a) 3575  b) 3475  c) 2225  d) 2325  e) 2325

6. \( 928.64 + 4217.32 + 238.14 = ? \)
   a) 8145.96  b) 8384  c) 8384.1  d) 8394.1  e) 8394.1

7. \( 3.881 + 3.932 + ? = 56.875 \)
   a) 33.0426  b) 330.426  c) 330.426  d) 330.426  e) 330.426

8. \( 7056 \div 2 = ? \)
   a) 1008  b) 8400  c) 84  d) 36  e) 36

9. \( 1004 \times 2 = ? \)
   a) 1013  b) 1103  c) 1003  d) 1003  e) 1003

10. \( 3.881 + 3.932 + ? = 56.875 \)
    a) 33.0426  b) 330.426  c) 330.426  d) 330.426  e) 330.426

11. \( 535 - 1985 + 4984 = ? \)
    a) 5560  b) 11934  c) 15566  d) 10354  e) 10354

12. \( 0.69 + 8.37 + ? = 31.66 \)
    a) 2.60  b) 6.072  c) 29.06  d) 18  e) 18

13. \( 961 - 2187 + 8571 = ? \)
    a) 1111534  b) 16719  c) 1123115  d) 111345  e) 111345

14. \( 817 + 361 + ? + 51 = 4232 \)
    a) 1003  b) 1103  c) 1003  d) 1003  e) 1003

15. \( 77.6 + 349.5 = ? \)
    a) 817.1  b) 9171  c) 816.1  d) 927.1  e) 927.1

16. \( 2851 - 69 - 732 = ? \)
    a) 13562  b) 13514  c) 11050  d) 12050  e) 12050

17. \( 12 + 199 \times 2 = ? \)
    a) 3575  b) 3475  c) 2225  d) 2325  e) 2325

18. \( 16.22 \times 6 = ? \)
    a) 6  b) 4  c) 10  d) 100  e) 100

19. \( 0.25 \times 10.20 = ? \)
    a) 61.455  b) 614.55  c) 614.55  d) 614.5  e) 614.5

20. \( 20 \times ? = 4200 \)
    a) 225  b) 21  c) 44.1  d) 164  e) 164

21. \( 150 \times ? = 4200 \)
<table>
<thead>
<tr>
<th>Equation</th>
<th>a)</th>
<th>b)</th>
<th>c)</th>
<th>d)</th>
<th>e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>( 4 + 6 + 3 + 1 = ? )</td>
<td>( 11 )</td>
<td>( 6 )</td>
<td>( 5 )</td>
<td>( 1 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( (56 \times (4)^2 = ? )</td>
<td>( 256 )</td>
<td>( 196 )</td>
<td>( 224 )</td>
<td>( 6 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 826 - (252 - 18) = ? )</td>
<td>( 7880 )</td>
<td>( 7876 )</td>
<td>( 7842 )</td>
<td>( 7870 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( (6.6 + 3.4) + 25 = ? )</td>
<td>( 8.0 )</td>
<td>( 0.8 )</td>
<td>( 0.088 )</td>
<td>( 0.88 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 8 - 9 \times 2 \times 4 - 8 - 4 = ? )</td>
<td>( 1 )</td>
<td>( 4 )</td>
<td>( 10 )</td>
<td>( 11 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( \frac{2}{3} \times \frac{1}{7} + \frac{1}{2} = ? )</td>
<td>( 17 )</td>
<td>( 15 )</td>
<td>( 10 )</td>
<td>( 11 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 0.001 + 100 = ? )</td>
<td>( 10.001 )</td>
<td>( 1.0001 )</td>
<td>( 1000.1 )</td>
<td>( 100.001 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 800 \div 60 = ? )</td>
<td>( 60 )</td>
<td>( 600 )</td>
<td>( 30 )</td>
<td>( 90 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 16 + 136 = ? )</td>
<td>( 0.6 )</td>
<td>( 0.06 )</td>
<td>( 6 )</td>
<td>( 60 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 874 - 608) + 19 = ? )</td>
<td>( 34 )</td>
<td>( 24 )</td>
<td>( 14 )</td>
<td>( 78 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 234 \times 14 = ? )</td>
<td>( 17476 )</td>
<td>( 24808 )</td>
<td>( 12486 )</td>
<td>( 17276 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 88 + 0.8 \times 8 = ? )</td>
<td>( 8800 )</td>
<td>( 8080 )</td>
<td>( 8808 )</td>
<td>( 888 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 258 + 963 + 208 = ? )</td>
<td>( 4329 )</td>
<td>( 4419 )</td>
<td>( 5429 )</td>
<td>( 4429 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 3 \div 0.05 \times 10 \times 2 = ? )</td>
<td>( 126 )</td>
<td>( 13 )</td>
<td>( 52 )</td>
<td>( 3 \div 4 )</td>
<td>( 12 )</td>
</tr>
<tr>
<td>( 18 \times 6) \times (17 \times 6) = ? )</td>
<td>( \sqrt{81} )</td>
<td>( 1124 )</td>
<td>( 1224 )</td>
<td>( 2224 )</td>
<td>( 1204 )</td>
</tr>
<tr>
<td>( 4 \div 004 \div 40 = ? )</td>
<td>( 5 )</td>
<td>( 500 )</td>
<td>( 1600 )</td>
<td>( 600 )</td>
<td>( 610 )</td>
</tr>
<tr>
<td>( 2 \times 56 \div 2 = ? )</td>
<td>( 504 )</td>
<td>( 404 )</td>
<td>( 604 )</td>
<td>( 516 )</td>
<td>( 12 )</td>
</tr>
</tbody>
</table>
1. \( \frac{1}{3} + \frac{4}{6} + \frac{2}{3} = ? \)

2. \( \frac{15}{3} \times \frac{2}{3} = ? \)

3. \( \sqrt{169} \times \frac{48}{13} = ? \)

4. \( \sqrt{144} = ? \times 64 \)

5. \( (81 \div 9) \times \frac{25}{20} = ? \)

6. \( 12 - 4613 + 5922 = ? \)

7. \( 4291 \div 5291 \times 142 = ? \)

8. \( 24 \div 72 = ? \)

9. \( 3 - \frac{1}{9} = ? \)

10. \( 27 \div \frac{2187}{270} = ? \)

11. \( 20 \div \frac{2}{32} = ? \)

12. \( 9.0999 \div 9.9999 = ? \)

13. \( 2 \times \frac{5}{13} = ? \)

14. \( \frac{1}{15} = \frac{1}{6} \times \frac{4}{b} \times \frac{3}{c} \times \frac{5}{d} = ? \)
SECTION B
VERBAL REASONING

1. There are 4 different types of roses: 2 long, 6 medium, 4 small, and 3 large. If you have a total of 20 roses, how many of each type do you have?
   (a) 2 long, 6 medium, 4 small, 3 large
   (b) 4 long, 6 large, 2 medium
   (c) 3 long, 4 medium, 5 small
   (d) 2 long, 6 medium, 4 small, 3 large

2. The population of a town increased by 25% in the first year. If the population was 10000 in the second year, what was the population in the first year?
   (a) 12500
   (b) 10000
   (c) 15000
   (d) 17500

3. A rectangular field has a length of 5 meters and a width of 3 meters. If you want to divide this field into two equal parts, what is the area of each part?
   (a) 7.5 square meters
   (b) 15 square meters
   (c) 22.5 square meters
   (d) 30 square meters

4. A total of 35 books were sold in a bookstore. If 25% of the books sold were novels, how many novels were sold?
   (a) 10
   (b) 14
   (c) 18
   (d) 22

5. A car travels 100 miles in 2 hours. If it continues at the same speed, how far will it travel in 4 hours?
   (a) 200 miles
   (b) 300 miles
   (c) 400 miles
   (d) 500 miles

6. A rectangular box has a length of 12 inches, a width of 9 inches, and a height of 4 inches. What is the volume of the box?
   (a) 432 cubic inches
   (b) 504 cubic inches
   (c) 576 cubic inches
   (d) 648 cubic inches

7. A set of 5 coins consists of 3 quarters, 1 dime, and 1 nickel. If you randomly select 2 coins, what is the probability of selecting a quarter and a dime?
   (a) 3/10
   (b) 2/10
   (c) 1/10
   (d) 0/10

8. A right triangle has a base of 3 inches and a height of 4 inches. What is the area of the triangle?
   (a) 6 square inches
   (b) 8 square inches
   (c) 10 square inches
   (d) 12 square inches

9. A rectangle has a length of 10 meters and a width of 5 meters. What is the area of the rectangle?
   (a) 45 square meters
   (b) 50 square meters
   (c) 55 square meters
   (d) 60 square meters

10. A square has a side length of 4 inches. If the side length is doubled, what is the new area of the square?
    (a) 16 square inches
    (b) 32 square inches
    (c) 64 square inches
    (d) 128 square inches

11. A triangle has a base of 6 feet and a height of 8 feet. What is the area of the triangle?
    (a) 24 square feet
    (b) 32 square feet
    (c) 40 square feet
    (d) 48 square feet

12. A circle has a radius of 3 inches. What is the circumference of the circle?
    (a) 6 inches
    (b) 9 inches
    (c) 12 inches
    (d) 15 inches

13. A parallelogram has a base of 5 meters and a height of 3 meters. What is the area of the parallelogram?
    (a) 15 square meters
    (b) 18 square meters
    (c) 20 square meters
    (d) 24 square meters

14. A triangle has a base of 7 feet and a height of 4 feet. What is the area of the triangle?
    (a) 14 square feet
    (b) 20 square feet
    (c) 24 square feet
    (d) 28 square feet

15. A rectangle has a length of 12 feet and a width of 5 feet. If the length is increased by 3 feet, what is the new area of the rectangle?
    (a) 72 square feet
    (b) 80 square feet
    (c) 96 square feet
    (d) 108 square feet

16. A square has a side length of 8 inches. If the side length is increased by 2 inches, what is the new area of the square?
    (a) 100 square inches
    (b) 121 square inches
    (c) 144 square inches
    (d) 169 square inches

17. A rectangle has a length of 10 meters and a width of 5 meters. If the length is decreased by 2 meters, what is the new area of the rectangle?
    (a) 30 square meters
    (b) 40 square meters
    (c) 50 square meters
    (d) 60 square meters

18. A triangle has a base of 6 feet and a height of 8 feet. If the base is increased by 3 feet, what is the new area of the triangle?
    (a) 24 square feet
    (b) 30 square feet
    (c) 36 square feet
    (d) 42 square feet

19. A rectangle has a length of 12 feet and a width of 5 feet. If the length is decreased by 2 feet, what is the new area of the rectangle?
    (a) 50 square feet
    (b) 60 square feet
    (c) 70 square feet
    (d) 80 square feet

20. A triangle has a base of 7 feet and a height of 4 feet. If the base is increased by 2 feet, what is the new area of the triangle?
    (a) 28 square feet
    (b) 32 square feet
    (c) 36 square feet
    (d) 40 square feet
Appendix 3.4

SECTION C

MATHÉMATICAL INTEREST

நபர் வட்டமுறையில் சாசையாளர் வரும் மறைப்புகள் பெருமளவான எதிர்ப்பு "மாது", "சேலம்" யாழை கொடுக்கும் இருவகையான விளக்கங்களையும் விளக்கங்களையும் விளக்கங்களையும் (7) விளக்கம்.
SECTION - D

SCHOOL ANXIETY

1. Describe the symptoms of school anxiety experienced by a student. Provide specific examples.
2. Discuss how school anxiety can lead to emotional distress and negatively impact a student's behavior.
3. Identify strategies to mitigate school anxiety and promote mental well-being in students.
4. Evaluate the effectiveness of current interventions in managing school anxiety.
5. Explain how school anxiety can affect academic performance and social interactions.
6. Suggest ways to create a supportive environment that helps students overcome school anxiety.
7. Assess the role of parents and teachers in identifying and addressing school anxiety.
8. Discuss the implications of school anxiety for long-term mental health and how to prevent its development.
9. Propose interventions that can be implemented in schools to reduce the incidence of school anxiety.
10. Conclude by emphasizing the importance of early intervention and support for students experiencing school anxiety.

SECTION - E

SELF ESTEEM

1. Define self-esteem and discuss its significance in shaping an individual's confidence and self-worth.
2. Explore the factors that contribute to the development of high or low self-esteem.
3. Analyze the impact of societal standards and peer pressure on an individual's self-esteem.
5. Evaluate the effectiveness of self-esteem interventions and their long-term effects.
6. Examine the relationship between self-esteem and academic achievement.
7. Suggest ways to foster a positive self-image among students and promote healthy self-esteem.
8. Assess the role of technology in enhancing or diminishing self-esteem among young people.
9. Propose policies and programs that support the development of self-esteem in schools.
10. Conclude by emphasizing the importance of a supportive and encouraging environment for building self-esteem.
### SECTION - F

1. The table shows the data for various categories. The data is presented in a table format, with columns for different parameters and rows for different categories. The table is structured to facilitate easy comparison and analysis.

<table>
<thead>
<tr>
<th>Category</th>
<th>Parameter 1</th>
<th>Parameter 2</th>
<th>Parameter 3</th>
<th>Parameter 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter 1</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td>Value 4</td>
</tr>
<tr>
<td>Parameter 2</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td>Value 4</td>
</tr>
<tr>
<td>Parameter 3</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td>Value 4</td>
</tr>
<tr>
<td>Parameter 4</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td>Value 4</td>
</tr>
</tbody>
</table>

2. The data in the table is presented in a structured format to help in easy analysis and comparison. The table is designed to provide a clear view of the data for better understanding.

### SECTION - G

#### Scale: 1

<table>
<thead>
<tr>
<th>Scale</th>
<th>Progression/Non Progession</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progression</td>
<td></td>
<td>Class</td>
</tr>
<tr>
<td>Non Progession</td>
<td></td>
<td>Class</td>
</tr>
</tbody>
</table>

1. The table shows the classification of students based on their progress. The table is structured to facilitate easy comparison and analysis.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Progression/Non Progession</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td></td>
<td>Class 1</td>
</tr>
<tr>
<td>Grade 2</td>
<td></td>
<td>Class 2</td>
</tr>
<tr>
<td>Grade 3</td>
<td></td>
<td>Class 3</td>
</tr>
</tbody>
</table>

2. The data in the table is presented in a structured format to help in easy analysis and comparison. The table is designed to provide a clear view of the data for better understanding.

3. The table shows the classification of students based on their progress. The table is structured to facilitate easy comparison and analysis.
SECTION - H

ACHIEVEMENT MOTIVATION

0 %  25 %  50 %  75 %  100 %

"சுல்புறு சுந்தர சுட்டு வைத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்திய சுத்தி
\[
\frac{1}{2} \cdot (a)^n = \frac{2}{(2n - 1)(2n + 1)} \quad (a)^n = \frac{2}{(2n - 1)^2} \quad (a)^n = \frac{2}{n(n + 1)}
\]

\[
\begin{align*}
1 & \quad (a)^n = \frac{2}{1 + a + a^2 + a^3 + \cdots} & S_n \quad \text{sum of series} \\
1 - r & \quad a & \quad 1 - a & \quad 1 - a
\end{align*}
\]

\[
\begin{align*}
5 & \quad (a)^n = 2^n + 6^n + \cdots + 2n^n & (a)^n = \frac{2}{n(n + 1)}
\end{align*}
\]

\[
\begin{align*}
\text{G.P.} & \quad a, r & \quad x + 1 & \quad x^{16}
\end{align*}
\]

\[
\begin{align*}
\text{A.P.} & \quad n, a, a + d, \ldots & \quad n + 1, a, a + d, \ldots
\end{align*}
\]

\[
\begin{align*}
\text{A.P.} & \quad n, a, a + d, \ldots & \quad n + 1, a, a + d, \ldots
\end{align*}
\]

\[
\begin{align*}
\text{G.P.} & \quad a, r & \quad x, r & \quad x^{16}
\end{align*}
\]
30. \((a-b)^1\) தேவை என்ன?  
(a) \((a+b)\) - \(a^2+b^2\)  
(b) \(a-b\)  
(c) \((a+b)(a-b)\)  
(d) \(a^3-3ab(a-b)-b^3\)

31. \((a+b)^2+(a-b)^2=\)  
(a) \(2(a^2+b^2)\)  
(b) \(a^2+b^2\)  
(c) \(2a^2b^2\)  
(d) \(4a^2b^2\)

32. \((a-b-c)^2\) தேவை என்ன?  
(a) \(a^2+b^2+c^2-2ab+2bc-2ca\)  
(b) \(a^2+b^2+c^2+2ab-2bc-2ca\)  
(c) \(a^2-b^2-c^2+2ab-2bc-2ca\)  
(d) \(a^2-b^2-c^2\)

33. \((2x+3)(2x-8)(2x+5)\)  
(a) \(8x^2-8x-120\)  
(b) \(8x^3-98x-120\)  
(c) \(8x^3\)  
(d) \(6x\)

34. \((3a-4b-5c)^2\)  
(a) \(9a^2+16b^2+25c^2\)  
(b) \(9a^2+16b^2+25c^2-24ab+40bc-30ca\)  
(c) \(6a-8b-10c\)  
(d) \(3a^2-9b^2-25c^2+24ab\)

35. \((a-b)^3\) என்ன என்ன?  
(a) \((a+b)\) - \((a^2+ab+b^2)\)  
(b) \(a+b\)  
(c) \((a-b)\)  
(d) \(a^3+2ab+b^3\)

36. \((3x^2-7x-8)(2x^2-4x+9x-3)\) என்ன என்ன?  
(a) \(3\)  
(b) \(2\)  
(c) \(6\)  
(d) \(5\)

37. \((3x-7)(3x-4)(3x+11)\) என்ன என்ன?  
(a) \(3\)  
(b) \(9\)  
(c) \(27\)  
(d) \(4\)

38. \(\sqrt[3]{3}\) என்ன என்ன என்ன?  
(a) \(\sqrt[3]{3}\)  
(b) \(3\)  
(c) \(\sqrt[3]{3}\)  
(d) \(\sqrt[3]{3}\)

39. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(1:2:3\)  
(b) \(\sqrt{3}\)  
(c) \(\sqrt[3]{3}:1\)  
(d) \(1:\sqrt{3}:2\)

40. \(0.1\) என்ன என்ன என்ன என்ன?  
(a) \(20\)  
(b) \(10\)  
(c) \(30\)  
(d) \(10\)

41. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(ab\)  
(b) \(1/ab\)  
(c) \(1/ab\)  
(d) \(1/ab\)

42. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(r \times 2\pi\)  
(b) \(D \times r\)  
(c) \(\pi D r\)  
(d) \(D \times 2\pi r\)

43. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(\sqrt{3} a\)  
(b) \(\sqrt[3]{3} a\)  
(c) \(\sqrt{3} a\)  
(d) \(\sqrt{2} a\)

44. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(10,20\)  
(b) \(6,90\)  
(c) \(10/3,20\)  
(d) \(\sqrt{3},10\)

45. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(10\)  
(b) \(5\)  
(c) \(2\)  
(d) \(4\)

46. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(78\)  
(b) \(13\)  
(c) \(32\)  
(d) \(30\)

47. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(12\)  
(b) \(24\)  
(c) \(6\)  
(d) \(6\sqrt{3}\)

48. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(6\)  
(b) \(8\)  
(c) \(16\)  
(d) \(14\)

49. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(r\)  
(b) \(r\)  
(c) \(r\)  
(d) \(r\)

50. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(200\)  
(b) \(20\)  
(c) \(2\)  
(d) \(2000\)

51. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(P\)  
(b) \(P^2\)  
(c) \(P^P\)  
(d) \(P^2\)

52. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(P(1+r/100)\)  
(b) \(P(1+r/100)^2\)  
(c) \(P(1+r/100)^4\)  
(d) \(A\) - \(P\)

53. \(1+2+3+\ldots\ldots+20=?\)  
(a) \(21\)  
(b) \(210\)  
(c) \(420\)  
(d) \(105\)

54. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(P(1+i)^2\)  
(b) \(P(1+i)^3\)  
(c) \(P\)  
(d) \(A\) - \(A\)

55. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(\sqrt{2}\)  
(b) \(\sqrt{2}\)  
(c) \(\sqrt{2}\)  
(d) \(\sqrt{2}\)

56. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(\sqrt{2}\)  
(b) \(\sqrt{2}\)  
(c) \(\sqrt{2}\)  
(d) \(\sqrt{2}\)

57. \(\sqrt{2}\) என்ன என்ன என்ன என்ன?  
(a) \(8\%)  
(b) \(10\%)  
(c) \(2\%)  
(d) \(1\%\)
60. If a sum of $12000 is distributed among four people in the ratios 2:3:4:5, how much does each person receive?
   (a) $2000 (b) $2500 (c) $3000 (d) $3500

61. Which of the following numbers is divisible by 6?
   (a) 10 (b) 20 (c) 30 (d) 40

62. If 6, 3, 7, 8, 5, 1 are arranged in ascending order, what is the middle number?
   (a) 6 (b) 7 (c) 8 (d) 5

63. If 2, 3, 5, 4, 2, 1, 3 are arranged in ascending order, what is the middle number?
   (a) 3 (b) 2 (c) 5 (d) 4

64. If \( n \) people are to be distributed among \( m \) groups, how many people are in each group?
   (a) \( n \) (b) \( n+1 \) (c) \( n \) (d) \( n-1 \)

65. If \( f(x) = \frac{x}{x+1} \) for \( x = 1, 2, 3, \ldots \), what is the value of \( f(3) \)?
   (a) \( \frac{1}{4} \) (b) \( \frac{1}{3} \) (c) \( \frac{1}{2} \) (d) \( \frac{2}{3} \)

66. If \( x, y \) are two variables, which of the following expressions is true?
   (a) \( x \) (b) \( y \) (c) \( (x+y) \) (d) \( (0,0) \)
90. \( x = \text{U} \)  
(a) 1  
(b) 2  
(c) 3  
(d) 4
91. \( x = 7, x = 9 \)  
(a) 3  
(b) 4  
(c) 6  
(d) 5
92. \( y = 3x, y = 5x \)  
(a) 3  
(b) 4  
(c) 1  
(d) 2
93. \( x + y = 5, x - y = 1 \)  
(a) 3, 2  
(b) 2, 3  
(c) (4, 5, 0)  
(d) (6, -1)
94. \( x + y = 5, x - y = 1 \)  
(a) 3, 2  
(b) 2, 3  
(c) (4, 5, 0)  
(d) (6, -1)
95. \( 2x + 3y = 0 \)  
(a) (0, 0)  
(b) (2, 3)  
(c) (2, 1)  
(d) (1, 2)
96. \( x + y = 2, x - y = 0 \)  
(a) (1, 1)  
(b) (1, 0)  
(c) (2, 1)  
(d) (1, 2)
97. \( 1, x \)  
(a) 1  
(b) 2  
(c) 10  
(d) 11
98. \( 1 \times 0 = \)  
(a) 1  
(b) 0  
(c) 10  
(d) 11
99. \( 11 \times 11 = \)  
(a) 1111  
(b) 1101  
(c) 1110  
(d) 1001
100. \( \text{if } x + y = 5, x - y = 1 \)  
(a) (2, 3)  
(b) (1, 2)  
(c) (3, 0)  
(d) (3, 0)
101. \( \text{if } x + y = 5, x - y = 1 \)  
(a) (2, 3)  
(b) (1, 2)  
(c) (3, 0)  
(d) (3, 0)
102. \( \text{if } x + y = 5, x - y = 1 \)  
(a) (2, 3)  
(b) (1, 2)  
(c) (3, 0)  
(d) (3, 0)
103. \( 10^2 = ? \)  
(a) 1  
(b) 100  
(c) 2  
(d) 100
104. \( 10^2 \times (11)^2 = ? \)  
(a) 100  
(b) 1000  
(c) 1100  
(d) 1111
105. \( 1 \times 1 + 0 + 0 + 1 + 1 = 2 \)  
(a) 2  
(b) 100  
(c) 110  
(d) 7
106. \( 5 = ? \)  
(a) 11  
(b) 111  
(c) 110  
(d) 101
1. \( \frac{7\sqrt{2}}{2} \) is correct
   (a) \( \frac{7}{2} \)  
   (b) \( 7\sqrt{2} \)  
   (c) \( \frac{14}{\sqrt{2}} \)  
   (d) \( 7/\sqrt{2} \)  
2. 2.1, 2.2 are incorrect. 2.01 is correct
   (a) 2.01  
   (b) 2.27  
   (c) 2.13  
   (d) 2.3  
3. \( x^4 \) is correct
   (a) \( n \)  
   (b) \( n - 1 \)  
   (c) 1  
   (d) \( n - 2 \)  
4. \( \sqrt{8} \) is correct
   (a) 0  
   (b) 2  
   (c) 8  
   (d) 8/3  
5. 3 \( \sqrt{2} \) is correct
   (a) 1  
   (b) 0  
   (c) 3  
   (d) 2  
6. 4 \( \sqrt{2} \) is correct
   (a) 0  
   (b) 4  
   (c) 3  
   (d) 5  
7. 45 is correct
   (a) 5  
   (b) 2  
   (c) 0  
   (d) 3  
8. 14 is correct
   (a) 14  
   (b) 7  
   (c) 9  
   (d) 11  
9. 111 is correct
   (a) 3  
   (b) 111  
   (c) 11  
   (d) 7  
10. 15 \( \sqrt{5} \) is correct
    (a) 30  
    (b) \( 300 \)  
    (c) 3  
    (d) 13  
11. \( \sqrt{7} \) is correct
    (a) 63  
    (b) 49  
    (c) 7  
    (d) 343  
12. \( A = \{1, 2, 3, 4\} \) is correct
    (a) \( 3 \subseteq A \)  
    (b) \( 5 \in A \)  
    (c) \( 4 \in A \)  
    (d) \( 2 \subseteq A \)  
13. \( A = \{a, b, c\} : B = \{b, a, c\} \) is correct
    (a) A, B are correct  
    (b) A, B are correct  
    (c) A, B are correct  
    (d) A, B are correct  
14. \( A = \{0, 1, 4, 3\} \) is correct
    (a) 3 \( \subseteq P(A) \)  
    (b) 2 \( \subseteq P(A) \)  
    (c) \( \infty \)  
    (d) 4  
15. \( A = \{2, 5\} \) is correct
    (a) 2 \( \subseteq P(A) \)  
    (b) 24 \( \subseteq P(A) \)  
    (c) 4 \( \subseteq P(A) \)  
    (d) 42  
16. \( A \cup B = ? \) is correct
    (a) \( A \cup B \)  
    (b) \( (A \cap B) \cap (B-A) \)  
    (c) \( (A-B) \cup (B-A) \)  
    (d) \( A \cap B \)  
17. \( A \cap B = ? \) is correct
    (a) \( A' \cap B' \)  
    (b) \( (A \cap B)' \)  
    (c) \( A' \cup B' \)  
    (d) \( A' \cap B' \)  
18. \( n(A) = 3 \) \( n(B) = 2 \) are correct
    (a) 5 \( \subseteq n(AXB) \)  
    (b) 3 \( \subseteq n(AXB) \)  
    (c) 2 \( \subseteq n(AXB) \)  
    (d) 6  
19. \( a \cdot b = ab \) is correct
    (a) \( 3 \subseteq A \)  
    (b) \( 5 \in A \)  
    (c) 4 \( \in A \)  
    (d) \( 2 \subseteq A \)  
20. \( A = \{1, 2, 3, 5, 8, 9\} ; B = \{2, 5, 9, 10, 12\} \) is correct
    (a) \( A - B = \)  
    (b) \( \{10, 12\} \)  
    (c) \( \{2, 5, 9\} \)  
    (d) \( \{12\} \)  
21. \( a \cdot b = a + b - 2 \) is correct
    (a) 1 \( \subseteq \)  
    (b) 2 \( \subseteq \)  
    (c) -2 \( \subseteq \)  
    (d) 3  
22. \( f(x) = x^2 + 2x + 3 \) is correct
    (a) 3 \( \subseteq f(2) \)  
    (b) 2 \( \subseteq f(2) \)  
    (c) -3 \( \subseteq f(2) \)  
    (d) -2  
23. \( a + b - c \) squared is correct
    (a) \( a^2 + b^2 + c^2 \)  
    (b) \( a^2 + b^2 + c^2 + 2ab + 2bc + 2ca \)  
    (c) \( a^2 + b^2 - c^2 + 2ab - 2bc - 2ca \)  
    (d) \( a^2 + b^2 + c^2 + 2ab + 2bc + 2ca \)  
24. \( 3x^2 - 75 = ? \) is correct
    (a) \( (x + 5)(x - 5) \)  
    (b) \( (3x + 5)(3x - 5) \)  
    (c) \( (x + 5)(x - 5) \)  
    (d) \( (3x + 5)(3x + 1) \)  
25. \( a^3 + 8 = ? \) is correct
    (a) \( (a^2 - 2a + 4)(a^2 + 2a + 4) \)  
    (b) \( (a + 2)(a^2 + 2a + 4) \)  
    (c) \( (a^2 + 4)(a + 2) \)  
    (d) \( (a^2 + 2)(a - 2) \)  
26. \( (4x^2 - 7x - 8)(2x^2 + 3x - 5) \) is correct
    (a) \( -20 \)  
    (b) \( -16 \)  
    (c) 11  
    (d) -57  
27. \( x + y = -8 ; x - y = 2 \) is correct
    (a) \( x = 3, y = -5 \)  
    (b) \( x = 7, y = 5 \)  
    (c) \( x = -3, y = 5 \)  
    (d) \( x = -3, y = 5 \)  
28. \( a^2 + b^2 = (a + b)^2 \) is correct
    (a) \( a^2 - ab^2 + b^2 \)  
    (b) \( a^2 + b^2 + 2ab \)  
    (c) \( a^2 + b^2 \)  
    (d) \( (a + b)^2 \)
31. \[
\begin{pmatrix}
3 & 5 & 0 \\
0 & 3 & 0 \\
0 & 0 & 2
\end{pmatrix}
\]
Find the determinant of the matrix.

32. \[
x = \begin{pmatrix}
1 & 2 & 3
\end{pmatrix}
\]
Find \(x^2\).

33. \[
A = \begin{pmatrix}
1 & 2 & 1 \\
1 & 3 & 1 \\
1 & 2 & 3
\end{pmatrix}
\]
Find \(A + B\) where \(B = \begin{pmatrix}
1 & 0 \\
1 & 0 \\
1 & 0
\end{pmatrix}\).

34. \[
2A = \begin{pmatrix}
1 & 2 \\
2 & 1
\end{pmatrix}
\]
Find \(8A\).

35. \[
(5x + 1) = 20
\]
Find \(x\).

36. \[
P(A) = 0.8
\]
Find \(P(A)\).

37. \[
\sin B = \tan 6
\]
Find \(B\).

38. \[
A(3, 2), B(5, -4), C(3, 2)
\]
Find the area of \(\triangle ABC\).

39. \[
y = 4x - 6
\]
Find the equation of the line.

40. \[
(0, -7) (4, 10) (5, 0)
\]
Find the midpoint of the line segment.

41. \[
\sin 2\theta = \sin (90 - 2\theta)
\]
Find \(\theta\).

42. \[
A(-3, 2), B(5, -4), C(3, k)
\]
Find the value of \(k\).

43. \[
\cos \theta = \sin 61^\circ
\]
Find \(\theta\).

44. \[
1 + \tan^2 45^\circ = \sec^2 45^\circ
\]
Find the value.

45. \[
\sin^2 2\theta = \cos^2 50^\circ
\]
Find \(\theta\).

46. \[
\sin \theta, \cos (90 - \theta) + \cos \theta \sin (90 - \theta)
\]
Find the value.

47. \[
\sin 2\theta - \sin 61^\circ = \sin 25^\circ
\]
Find the value.

48. \[
\frac{1}{\cos 20^\circ} = \sec 20^\circ
\]
Find the value.

49. \[
A(-3, 2), B(5, -4)
\]
Find the distance between the points.

50. \[
y = -6x - 7
\]
Find the solution for the equation.

51. \[
(1, 5), (5, 1)
\]
Find the slope of the line.

52. \[
(3, 5), (9, 3), (5, 2)
\]
Find the equation of the line.

53. \[
(-1, 1), (1, 3), (3, k)
\]
Find the value of \(k\).
\[\begin{align*}
\text{ABC } &\text{ and } \text{BC } AD: DB = \frac{3}{4} \quad \text{and } \text{AC } : \text{AE } \Rightarrow \triangle BCD \quad \text{(c) } 3 : 7 \\
\text{AD } &\text{ and } \text{BC } \quad \text{ratio of areas } = \frac{1:16}{25} \quad \text{and } \text{AF } : \text{BC } = \frac{1}{5} \quad \text{and } \text{BC } = \text{AE } \Rightarrow \text{triangle } 3:1 \\
\text{1) } &\text{ and } \text{2) } \Rightarrow \triangle \text{equal areas } \Rightarrow \text{triangle } 3:1 \\
\text{AD } &\text{ and } \text{BC } \quad \text{ratio of areas } = \frac{1:16}{25} \quad \text{and } \text{AF } : \text{BC } = \frac{1}{5} \quad \text{and } \text{BC } = \text{AE } \Rightarrow \text{triangle } 3:1 \\
\end{align*}\]

**Mathematical Problem:**

Given the triangle ABC with points A, B, and C, and knowing the relationships between the sides and areas, determine the missing values.

1. \(\text{AC} : \text{AE} = \frac{3}{4}\)
2. \(\text{AD} : \text{DB} = \frac{3}{4}\)
3. \(\text{AF} : \text{BC} = \frac{1}{5}\)
4. \(\text{BC} = \text{AE}\)
5. \(\text{Triangle } \text{AD} = \text{BC}\)

**Programming Problem:**

Given the program below, analyze the logic and output of the program.

```plaintext
INPUT A
INPUT B
INPUT C
A = B
C = A * B
PRINT A
END
```

**Output:**

```
A = B
C = A * B
```

**Mathematical Expression:**

\[\begin{align*}
x^2 + 1 &\Rightarrow x = \begin{cases} 0, & (0, 2) \\ 1, & (1, 0) \end{cases} \quad \text{(a) } (3, 0) \\
\end{align*}\]

\[\begin{align*}
x^2 + 1 &\Rightarrow x = \begin{cases} 0, & (0, 2) \\ 1, & (1, 0) \end{cases} \quad \text{(a) } (3, 0) \\
\end{align*}\]

**Algebraic Expression:**

\[\begin{align*}
x^2 + 1 &\Rightarrow x = \begin{cases} 0, & (0, 2) \\ 1, & (1, 0) \end{cases} \quad \text{(a) } (3, 0) \\
\end{align*}\]

\[\begin{align*}
x^2 + 1 &\Rightarrow x = \begin{cases} 0, & (0, 2) \\ 1, & (1, 0) \end{cases} \quad \text{(a) } (3, 0) \\
\end{align*}\]

**Program Flow:**

1. Input A
2. Input B
3. Input C
4. A = B
5. C = A * B
6. Print A

**Output:**

```
A = B
C = A * B
```

**Mathematical Expression:**

\[\begin{align*}
x^2 + 1 &\Rightarrow x = \begin{cases} 0, & (0, 2) \\ 1, & (1, 0) \end{cases} \quad \text{(a) } (3, 0) \\
\end{align*}\]
84. \( \pi \text{ rad} \) (a) \( \frac{1}{3} \pi \text{ rad} \) (b) \( \frac{2}{3} \pi \text{ rad} \) (c) \( \frac{4}{3} \pi \text{ rad} \) 

85. The equation of the tangent to the circle \( x^2 + y^2 = r^2 \) at \( (x_1, y_1) \) is \( xx_1 + yy_1 = r^2 \). 

86. The area of the triangle \( 10.5 \text{ cm} \), the base \( 14 \text{ cm} \), and the height \( 17.5 \text{ cm} \) is \( 57.75 \text{ cm}^2 \). 

87. The shaded area of the circle is \( \pi r^2 \). 

88. Boolean expressions involving logical operators:
- \( A \land (B \lor C) = (A \land B) \lor (A \land C) \)
- \( A \lor (B \land C) = (A \lor B) \land (A \lor C) \)
- \( A \lor (B \land C) = (A \lor B) \land (A \lor C) \)

89. The domain of \( A \cup B \) is \( \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\} \). 

90. \( n(A) = 5; n(A \lor B) = 8; n(A) = 3; n(B) = 2 \) 

91. \( p(x) = x^2 + px + q = 0 \) 

92. \( x^2 + px + q = 0 \) 

93. \( x^2 + px + q = 0 \) 

94. \( P(1) = 2; P(-1) = 0; P(2) = 1; \) 

95. The values of \( P(A) = 0.8; P(B) = 0.6; P(A \lor B) = 0.5 \) are: 

96. If \( AB = DE, AC = DF, \angle A = \angle D \) then \( ABCD \) is a parallelogram. 

97. \( 10 \text{ INPUT } D \) 

98. 

99. \( 10 \text{ INPUT } D \) 

100. \( 10 \text{ INPUT } D \) 

101. \( AB + CD = AD + BC \) 

102. \( AB = DE, AC = DF, \angle A = \angle D \) 

103. \( x^T y \) 

104. \( x^T y \) 

105. \( 10 \text{ INPUT } D \) 

20 \( R = 3.5 \times D \) 

30 \( \text{PRINT } R \) 

40 \( \text{END} \)