



CUMBUM, PRAKASAM Dt.

S.L.V. COLLEGE OF EDUCATION

Nehrunagar, CUMBUM, Prakasam Dt.

SEMESTER - III

PEDAGOGY OF SCHOOL SUBJECT - (PART-B)

Course (Paper) - X/XI

Subject of Pedagogy *Mathematics*

ACTIVITY RECORD

5 Activities (25 Marks)

Name of the Teacher Trainee : _____

Register No. : _____



Affiliated to
ACHARYA NAGARJUNA UNIVERSITY, GUNTUR.

B.Ed., 20 - 20

COURSE -X

Pedagogy of mathematics

III rd Semester

ACTIVITY -01

Essay writing/ Quiz competitions in mathematics

SATYAM EDUCATION

7th-Grade Math Quiz

• 1.

Evaluate for $x = 11$: $x + 4$

- A. 13
- B. 14
- C. 15
- D. 16

Ans: C

• 2.

Evaluate for $n = 0$: $2(4 + n) - 5$

- A. 0
- B. 1
- C. 2
- D. 3

Ans: D

• 3.

Evaluate for $x = 8$ and $y = 10$: $3x + 2y$

- A. 40
- B. 41
- C. 42
- D. 43

Ans: D

• 4.

Write an algebraic expression for: 77 more than the product of 2 and u

- A. 77 more than $2u$
- B. $2u - 77$
- C. $77 + 2u$
- D. $2u = 77$

Ans: A

• 5.

What is the absolute value of -10 minus the absolute value of 4 plus 1.

- A. 15
- B. -15
- C. 5
- D. -5

• 6.

Which is bigger? -14 _____ 0

- A. $-14 < 0$
- B. $-14 > 0$
- C. $-14 = 0$

• 7.

What is: $6 + (-4)$

- A. 2
- B. 10
- C. -2
- D. -10

• 8.

Evaluate for $m = -5$: $m + 7$

- A. -2
- B. 12
- C. 2
- D. -12

• 9.

What is: $8 - (-4)$

- A. 2
- B. 6
- C. -12
- D. 12

• 10.

Evaluate for $m = -8$: $9 - m$

- A. -17
- B. 17
- C. 1
- D. -1

• 11.

What is: $-7 (-4) (3)$

- A. 81
- B. 82
- C. 83
- D. 84

• 12.

What is: $[-3 (4) (2)] \div -8$

- A. 1
- B. 2
- C. 3
- D. 4

• 13.

Is x equal to 10, 12, or 25?: $x + 6 = 18$

- A. 10
- B. 12
- C. 25

• 14.

Solve. $1785 = t - (-836)$

- A. 948
- B. 949
- C. 950
- D. 951

• Integers Quiz

1

Add $(-10) + (+12)$.

- A) 22
- B) 2
- C) -2
- D) -22

2

Add $(+7) + (-11) + (+5)$.

- A) -9
- B) -1
- C) 1
- D) 9

3

Subtract $(+6) - (-4)$.

- A) 10
- B) 2
- C) -2
- D) -10

4

Subtract $(-10) - (+3) - (-4)$.

- A) 9
- B) 2
- C) -2
- D) -9

5

Multiply $(-3)(+2)$.

- A) -6
- B) -5
- C) 5
- D) 6

6

Multiply $(-5)(-2)(+3)$.

- A) -30
- B) -10
- C) 10
- D) 30

Maths Quiz

Question 1. How many sides are there in a nonagon?

- A. 3
- B. 5
- C. 7
- D. 9

Question 2. How many months have 30 day.

- A. 2 months
- B. 4 months
- C. 11 months
- D. 12 months

Question 3. Which number occurred before 9019?

- A. 9099
- B. 9109
- C. 9091
- D. None of these.

Question 4. In words number 14 can be written as

- A. Fortin.
- B. Fourten.
- C. Forteen.
- D. Fourteen.

Question 5. What kind of number is 37?

- A. Odd.
- B. Prime.
- C. Both a and b.
- D. None of these.

Question 6. $13 - 13 \times 111 - 111 = \dots\dots$

- A. 1319
- B. 1443
- C. -1541
- D. 1

Question 7. Which term is used to identify a number?

- A. Constant.
- B. Variable.
- C. Both a and b.
- D. None of these

Question 8. What does PEMDAS stand for?

- A. Parenthesis Even Multiplication Divisor Addition Subtraction.
- B. Prime Even Multiple Divisor Add Subtract.
- C. Parenthesis Exponents Multiplication Division Addition Subtraction.
- D. None of these.

Question 9. Which of the following sets are odd numbers?

- A. 2, 3, 7, 9, 11
- B. 1, 3, 5, 7, 9
- C. 1, 2, 5, 7, 9
- D. 3, 6, 8, 11

Question 10. $6 - (5 - 3) + 10 = \dots\dots$

- A. 14
- B. 17
- C. 21
- D. 27

IIIrd Semester

ACTIVITY -02

Case study of gifted child and slow learner

Case study of gifted child with interventions suggested

Educating students with exceptional needs requires the implementation of programming components to meet their diverse abilities. Universal screenings, systematic assessments, and monitoring of students' progress leads to more effective and earlier identification of those who are at risk of academic failure. Gifted learners with learning disabilities need early interventions for their disabilities and, at the same time, they need interventions that provide additional challenge in their area of giftedness.

Schools should provide training for collaborative groups comprised of classroom teachers, gifted and special education specialists, parents, and other specialists such as school psychologists, counsellors, behaviour specialists, occupational therapists, and administrators. The training should focus on the unique characteristics of gifted learners with learning disabilities, develop a comprehensive plan, and monitor the learner's progress. The collaborative teams need to discuss, reflect, and apply the information they have learned to case studies of students and then to specific students in their schools. ,

4. STATEMENT OF THE PROBLEM

The study sought to establish the current state of intervention practices for gifted children with learning disabilities in india. It sought to answer the following question: What are the challenges of implementing intervention practices for gifted children with learning disabilities in primary schools of india?

4.1 Research Questions

a) What intervention practices are often used by teachers in assisting gifted children with learning disabilities in primary schools in india? b) What problems do teachers encounter in implementing intervention practices in assisting gifted children with learning disabilities in primary schools in india

4.2 Goals of the Study

The study sought to establish the challenges that teachers encounter in implementing intervention practices in assisting gifted children with learning disabilities in primary schools in india

5. METHOD

5.1 Design

A qualitative design was used. Qualitative designs are normally used when the study aims at describing and understanding a phenomenon from the participants' point of view (Leedy and Ormrod 2005). Since the present study sought to establish the challenges that teachers encounter in implementing intervention practices in assisting gifted children with learning disabilities in primary schools in India, the design was deemed suitable.

5.2 Sample

Twenty Special Education teachers (8 male and 7 female) teaching in inclusive primary schools in Bulawayo participated in the study. The Special Education teachers hold BSc Special Education degrees and are qualified teachers who were knowledgeable about gifted children with learning disabilities.

5.3 Instrumentation

An open-ended questionnaire focusing on the challenges that teachers encounter in implementing intervention practices in assisting gifted children with learning disabilities in primary schools in India was used. An expert in Special Education was asked to check on the relevance and usability of the items on the questionnaire.

5.4 Procedure

Special Education teachers teaching in inclusive primary schools were asked to complete the open ended questionnaire. Participation was voluntary. The participants were informed that they were free to withdraw from the study at any time during the data collection exercise

5.5 Data Analysis

Data were thematically analyzed. Data were examined for recurrent instances. These instances were then systematically identified across the data sets and grouped together. Thus, responses were categorized on the basis of the meanings they conveyed in relation to the main focus areas of the questionnaire..

6. RESULTS

6.1 Intervention practices often used by teachers in assisting gifted children with learning disabilities in schools

Most of the respondents indicated that there were many intervention practices that are used by teachers to assist gifted children with learning disabilities in primary schools of India. The gifted students with learning disabilities would be best served by separate programs developed especially for them. Individualized programmes are developed through a team

effort involving the parents, a gifted specialist, a learning disabilities specialist, a diagnostician, the general classroom teacher, and the child himself or herself.

6.2 Challenges that teachers encounter in implementing intervention practices in assisting gifted children with learning disabilities in primary schools The participants pointed that the main problems encountered by the teachers in educating their gifted students with learning disabilities were stigmatization, negative attitudes from members of the society and parental ignorance. They argued that one of the challenges was that the quality of teaching in implementing intervention strategies was affected where both the regular and the special pupils were Vol-3, Issue-8 PP. 764-770 ISSN: 2394-5788 769 | Page 30 August 2016 www.gjar.org taught in the same class since the teachers concerned had to divide their time and attention between both the two category of learners and this made the syllabus coverage a very slow process. One participant had this to say: —

7. DISCUSSION

The findings show that although many gifted students with learning disabilities would be best served by separate programs developed especially for them, it is likely that the needs of many could be met through appropriate identification of strengths and weaknesses and a flexible, individualized approach to using the existing services and resources available in and out of school. Ideally, the individualized program would be developed through a team effort involving the parents, a gifted specialist, a learning disabilities specialist, a diagnostician, the general classroom teacher, and the child himself or herself (Van TasselBaska,1991). In developing the student's unique educational program, his or her particular strengths and weaknesses,.

8. CONCLUSIONS

From the findings of this study, it can be concluded that the teachers were not trained to use the available intervention strategies for assisting gifted learners with learning disabilities in secondary schools of india. This study also concluded that problems encountered by the teachers in educating their gifted students with learning disabilities were stigmatization, negative attitudes from members of the society and parental ignorance that hindered the performance of these learners. The teachers used different intervention practices for assisting gifted children with learning disabilities in primary schools which included the use of collaborative team approach, enrichment strategies, acceleration and use of individual educational programmes.

9. RECOMMENDATIONS Based on the findings of this study, the following recommendations are made: There is need for continuous training of teachers and in servicing of teachers in assisting gifted learners with learning disabilities in Zimbabwe. There is need to provide enough resources in schools to assist gifted learners with learning disabilities in Zimbabwe. Teachers are encouraged to intervene earlier on behalf of a greater number of children who are at risk for school failure. Early interventions could reduce the frustration these students experience and prevent the social.

III rd Semester

ACTIVITY -03

Mathematical puzzles, games, riddles and other recreational activities

SATYAM EDUCATION

Math Riddles

1) I am a number with a couple of friends, quarter a dozen, and you'll find me again. What am I?

Ans. three

2) Add me to myself and multiply by 4. Divide me by 8 and you will have me once more. What number am I?

Ans: Any number

3) There is a three digit number. The second digit is four times as big as the third digit, while the first digit is three less than the second digit. What is the number?

Ans: 141

4) How many 9's are there between 1 and 100?

Ans: 20

5) In two years I know, I'll be twice as old as five years ago, said Tom. How old is Tom?

Ans: 12

6) What is half of two plus two?

Ans: ~~2~~ Three

7) Mom and dad have four daughters, and each daughter has one brother. How many people are in the family?

Ans: Seven.

8) Four years ago, Alex was twice as old as Jake. Four years from now, Jake will be $\frac{3}{4}$ of Alex's age. How old is Alex?

Ans: 12

9) If it is two hours later, then it will take half as much time till it's midnight as it would be if it were an hour later. What time is it?

Ans: Nine

10) Sally is 54 years old and her mother is 80, how many years ago was Sally's mother three times her age?

Ans: Forty-one

11) If two hours ago, it was as long after one o'clock in the afternoon as it was before one o'clock in the morning, what time would it be now?

Ans: Nine

12) I am four times as old as my daughter. In 20 years time I shall be twice as old as her. How old are we now?

Ans: I am forty and my daughter is ten.

13) An apple is 40 cents, a banana is 60 cents and a grapefruit is 80 cents. How much is a pear?

Ans: 40 cents. The price of each fruit is calculated by multiplying the number of values by 20c

14) If you're 8 feet away from a door and with each move you advance half the distance to the door. How many moves will it take to reach the door?

Ans: You will never reach the door, it will always be half the distance, no matter how small

15) In a bicycle race, the man who came two places in front of the last man finished one ahead of the man who came fifth. How many contestants were there?

Ans: There were 6 contestants. The man came in fourth place

16) My daughter has many sisters. She has as many sisters as she has brothers. Each of her brothers has twice as many sisters as brothers. How many sons and daughters do I have?

Ans: Four daughters and three sons. Each daughter has three sisters and three brothers and each brother has two brothers and four sisters.

17) When my father was 31 I was 8. Now he is twice as old as me. How old am I?

Ans: I must be 23 if my father is twice as old as me.

18) What did one math book say to another?

Ans: I have so many problems.

19) One brick is one kilogram and half a brick heavy. What is the weight of one brick?

Ans: One brick weighs 2 kilograms.

20) Place three matches on a table. Tell a friend to add two more matches to make eight.

Ans: Add two matches to make a Roman numeral eight.

21) There are 25 red balls, 47 green balls and 3 blue balls in a basket. There is a blind man. What is the minimum number of balls that the blind man has to pick to make sure that there are at least 2 balls of different colors?

Ans: 48 balls. There is a small chance he may pick up 47 green balls in a row.

22) Use the numbers 2, 3, 4 and 5 and the symbols + and = to make a true equation.

Ans: $2 + 5 = 3 + 4$

23) Mr. Smith has 4 daughters. Each of his daughters has a brother. How many children does Mr. Smith have?

Ans: Five

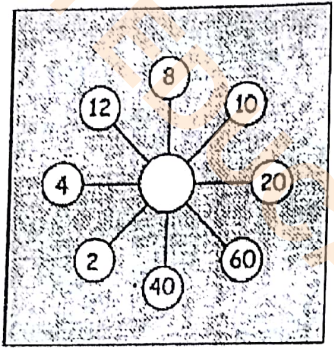
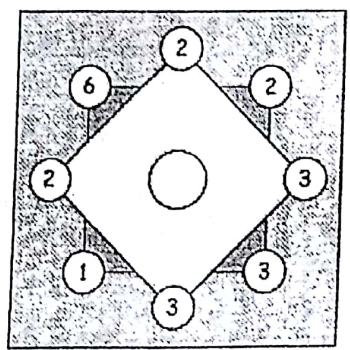
$$\square + \bigcirc = 10 \quad \bigcirc =$$

$$\triangle + \triangle = 6 \quad \triangle =$$

$$\triangle + \bigcirc = 5 \quad \square =$$

				16	=
				14	=
				16	=
				20	

17 15 17 17



$$1 + 1 + 1 + 1$$

$$+ 1 + 1 + 1 +$$

$$1 + 1 + 1 + 1$$

$$+ 1 \times 0 + 1 = ?$$

PatiaPatia.com

Replace the question mark

--	--	--

PatiaPatia.com

Fun Brain Math Puzzles Questions and Answers

Custom Search

Search

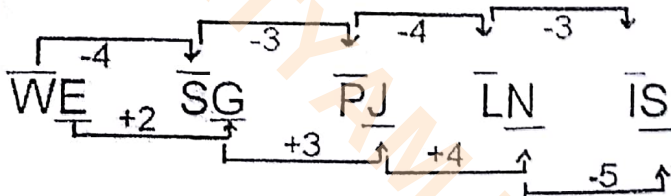
Fun brain math puzzles questions and answers are designed to stretch your thinking ability. Let's use logical math tricks to solve challenging and entertaining questions on math puzzles.

1. What is come in place of question mark (?) in the following series?

WE SG PJ LN ?

- (a) HS
- (b) IT
- (c) IS
- (d) HT

Solution:



2. If A is substituted by 4, B by 3, C by 2, D by 4, E by 3, F by 2 and so on, then what will be total of the numerical values of the letters of the word SICK?

- (a) 11
- (b) 12
- (c) 10
- (d) 9

Solution:

SICK
 ↓ ↓ ↓ ↓
 4 2 2 3

Total value = 4 + 2 + 2 + 3 = 11.

Answer: (a)

3. Four of the following five are alike in a certain way and hence form a group. Which one does not belong to the group?

- (a) 52
- (b) 70
- (c) 48
- (d) 68

Solution: All the numbers are multiple of 4, except 70.

Answer: (b)

5. How many letters of the word FAINTS, will their order in the word and that when the letters are arranged in the alphabetical order, remain the same?

- (a) Two
- (b) One
- (c) Three
- (d) Nil

Solution:

F A I N T S
A F I N S T

When the letters are arranged in the alphabetical order, two remains the same.

Answer: (a)

6. In a certain code GARNISH is written as RGAINHS. How will GENIOUS be written in that code?

- (a) NEGUISU
- (b) NGEUISU
- (c) NGESUOI
- (d) NEGSUOI

Solution:

G A R N I S H
X X X
R G A I N H S

So now, GENIOUS be written as;

G E N I O U S
X X X
N G E O I S U

Answer: (b)

10 maths riddles

Q. If two's company and three's a crowd, what are four and five?
A. 9

Q. If there are four apples and you take away three, how many do you have?
A. You took three apples so obviously you have three.

Q. Where do fish keep their money?
A. In the river bank.

Q. Two fathers and two sons go fishing. Each of them catches one fish. So why do they bring home only three fish?
A. Because the fishing group comprises a grandfather, his son, and his son's son - hence just three people.

Q. I add five to nine, and get two. The answer is correct, but how?
A. When it is 9am, add 5 hours to it and you will get 2pm.

Q. The ages of a father and son add up to 66. The father's age is the son's age reversed. How old could they be?
A. There are three possible solutions for this: the father-son duo could be 51 and 15 years old, 42 and 24 years old or 60 and 06 years old.

Find the answer.

What is the oldest table in the world?



To solve the riddle:

1. Write each answer in lowest terms.
2. Cross out every box below that contains an answer.
3. Write the letters that remain on the line to read the answer.

- | | | |
|--|--|---|
| 1. $\frac{2}{7} \times \frac{1}{2} = -$ | 2. $\frac{5}{8} \times \frac{4}{5} = -$ | 3. $\frac{1}{6} \times \frac{2}{3} = -$ |
| 4. $\frac{1}{3} \times \frac{3}{4} = -$ | 5. $\frac{1}{2} \times \frac{2}{3} = -$ | 6. $\frac{1}{3} \times \frac{2}{5} = -$ |
| 7. $\frac{3}{5} \times \frac{5}{8} = -$ | 8. $\frac{2}{3} \times \frac{2}{3} = -$ | 9. $\frac{1}{4} \times \frac{1}{4} = -$ |
| 10. $\frac{1}{3} \times \frac{1}{2} = -$ | 11. $\frac{5}{5} \times \frac{8}{9} = -$ | 12. $\frac{1}{5} \times \frac{1}{3} = -$ |
| 13. $\frac{3}{4} \times \frac{3}{4} = -$ | 14. $\frac{2}{5} \times \frac{3}{2} = -$ | 15. $\frac{1}{2} \times \frac{1}{4} = -$ |
| 16. $\frac{1}{5} \times \frac{1}{4} = -$ | 17. $\frac{4}{7} \times \frac{2}{5} = -$ | 18. $\frac{5}{7} \times \frac{5}{6} = -$ |
| 19. $\frac{3}{7} \times \frac{5}{6} = -$ | 20. $\frac{4}{9} \times \frac{3}{2} = -$ | 21. $\frac{7}{8} \times \frac{4}{5} = -$ |
| 22. $\frac{12}{15} \times \frac{1}{2} = -$ | 23. $\frac{10}{14} \times \frac{1}{3} = -$ | 24. $\frac{1}{7} \times \frac{4}{5} = -$ |
| 25. $\frac{3}{7} \times \frac{1}{4} = -$ | 26. $\frac{3}{8} \times \frac{6}{5} = -$ | 27. $\frac{5}{12} \times \frac{3}{2} = -$ |
| 28. $\frac{3}{8} \times \frac{3}{8} = -$ | 29. $\frac{2}{3} \times \frac{1}{3} = -$ | |

C	M	E	U	S	N	L	X	B	T	H	I
$\frac{2}{9}$	$\frac{5}{6}$	$\frac{1}{6}$	$\frac{10}{21}$	$\frac{1}{2}$	$\frac{1}{16}$	$\frac{3}{10}$	$\frac{1}{20}$	$\frac{4}{9}$	$\frac{9}{14}$	$\frac{7}{10}$	$\frac{4}{15}$
A	Y	P	L	L	J	D	I	V	I	C	C
$\frac{2}{5}$	$\frac{2}{15}$	$\frac{10}{33}$	$\frac{3}{28}$	$\frac{4}{5}$	$\frac{1}{3}$	$\frac{3}{5}$	$\frac{3}{7}$	$\frac{1}{7}$	$\frac{1}{9}$	$\frac{5}{18}$	$\frac{4}{35}$
A	F	Q	T	O	I	T	P	O	G	T	N
$\frac{16}{25}$	$\frac{3}{8}$	$\frac{1}{15}$	$\frac{7}{16}$	$\frac{5}{14}$	$\frac{3}{4}$	$\frac{5}{21}$	$\frac{1}{4}$	$\frac{4}{15}$	$\frac{2}{3}$	$\frac{1}{8}$	$\frac{9}{32}$
T	R	A	B	W	B	K	N	L	C	E	G
$\frac{3}{16}$	$\frac{9}{16}$	$\frac{11}{12}$	$\frac{8}{9}$	$\frac{9}{64}$	$\frac{9}{21}$	$\frac{8}{35}$	$\frac{25}{42}$	$\frac{19}{51}$	$\frac{9}{20}$	$\frac{5}{12}$	$\frac{5}{8}$

Answer: _____

III rd Semester

ACTIVITY -04

Formative, summative type of tests

SAIYAM EDUCATION

RAJIV VIDYA MISSION (SSA) ANDHRA PRADESH
SUMMATIVE ASSESSMENT – 2 (MODEL PAPER) – JAN 2013

MATHEMATICS
(ENGLISH MEDIUM)

TIME 2 ½ hrs

6TH CLASS

Name of the student _____

Roll no _____

Academic Standard	Problem Solving					Reasoning And Proof			Communication			Connection			Representation			Subject Grade
	4	7	9	11	15	1	2	12	5	8	13	10	14	16	3	6	17	
Q.No																		
Question Wise Grade																		
Academic Standard Wise Grade																		

I Solve the following

- 1) Find the three digit number which when divided by 75 , 45 and 60 leaves a) no remainder b) the remainder 4 in each case.
- 2) Renu takes $2\frac{1}{5}$ minutes to walk around the school ground. Smitha takes $\frac{7}{4}$ minutes to do the same. Who takes less time and by what fraction?
- 3) Travelling time from Hyderabad to Tirupathi by different means of transport are:-
 car – 8 hrs, Bus – 15 hrs, train – 12 hrs, aero plane – 1hr. Represent the information using bar diagram?

II Solve the following

- 4) A bicycle industry makes 3,125 bicycles each day. Find the total number of bicycles manufactured for the month of July?
- 5) State the differences between the set of whole numbers and set of integers.
- 6) Draw a circle and shade minor segment and major segment?
- 7) Add (-20), (-82), (-28) and 14.
- 8) Ravi has 'X' number of balls. Number of balls with Raju is 3 times of the balls with Ravi. Write This as an expression.
- 9) Solve $x-4 = 2$.
- 10) Give the examples for line segment from you surroundings?
- 11) Subtract $\frac{2}{3}$ from the sum of $\frac{4}{7}$ and $\frac{3}{2}$?
- 12) Find the smallest number that can be subtracted from 1965, so that it becomes divisible by 4
- 13) "One crore twenty seven lakhs thirty five thousand forty five" write this into International Number system.
- 14) Write the examples where you can observe the right angles

OBJECTIVE TYPE QUESTIONS

15) Fill in the blanks

1) The largest five digit number _____

2) $79 \times 101 =$ _____

3) G.C.D. of 40 and 56 is _____

4) Give an example of improper fraction _____

5) Solution of $2X + 6 = 0$ is _____

16) Match the following

1) $\frac{1}{2} + \frac{1}{4}$

() a. $\frac{1}{4}$



2)

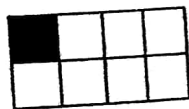
() b. Perpendicular lines

3)

$L \perp m$

() c. $\frac{1}{8}$

4)



() d. 10.5

5) $\frac{21}{2}$ decimal form

() d. 0.75

17) Choose the correct answer from the given multiple choices

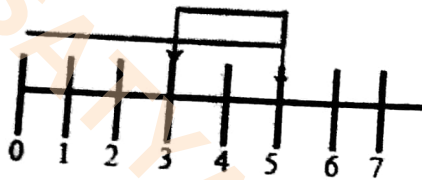
1) "3 more of x is equals to 7" represented as ()

a) $x - 3 = 7$ b) $x + 7 = 3$ c) $x + 3 = 7$ x-7 = 3

2) Expanded form of 29,307 is ()

a) $20000 + 9000 + 300 + 70 + 0$ b) $200000 + 9000 + 300 + 0 + 7$

c) $29000 + 300 + 0 + 7$ d) $29300 + 7$

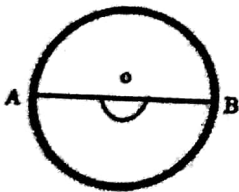


3)

Represents which of the following ()

a) $3 + 2 = 5$ b) $5 - 2 = 3$ c) $5 - 3 = 2$ d) $5 + 3 = 8$

4) the angle at 'O' is ()



a) right angle b) acute angle c) straight angle d) null angle

5) The standard form of an even number is ()

a) $2n + 1$ b) $3n$ c) $2n - 1$ d) $2n$

III rd Semester

ACTIVITY -05

Diagnostic test in Algebra,Arithmectic and Geometry
from VIII to X class mathematic syllabus

SHRUTIYAM EDUCATION

Algebra Diagnostic Pre-Test

50 questions – 60 minutes

Multiple Choice

Use the answer "NOTA" (which stands for None Of The Above) if the answer is not listed

1. Evaluate $7m + 3mn$ when $m = 8$ and $n = 14$

- A) 84 B) 196 C) 392 D) 168 E) NOTA

2. Simplify: $675 \div (6 + 9 \div 3)$

- A) 15 B) 9 C) 75 D) 225 E) 135

3. $(4x^2y^3)^2 =$

- A) $8x^4y^5$ B) $16x^4y^5$ C) $4x^4y^6$
D) $16x^2y^3$ E) NOTA

4. $(3x - 2)(4x + 1) =$

- A) $12x^2 - 8x - 2$ B) $12x^2 + 5x - 2$ C) $x^2 - 5x - 2$
D) $12x^2 - 5x - 2$ E) NOTA

5. $(4xy^2)^3 =$

- A) $-64x^3y^6$ B) $\frac{1}{4x^3y^6}$ C) $\frac{1}{64x^3y^6}$
D) $-\frac{4}{x^3y^6}$ E) NOTA

6. $(x - 4)(x + 4) =$

- A) $x^2 - 16$ B) $x^2 + 16$ C) $x^2 - 8x + 16$
D) $x^2 + 8x + 16$ E) NOTA

7. Find the equation that best represents the following word problem:
In a certain freshman class, the number of girls is 83 less than twice the number of boys (b). The total number of students in that freshman class is 259. How many boys and girls are in that class?

- A) $b + 2b = 259 - 83$ B) $b + 2b - 83 = 259$
C) $b + 83 - 2b = 259$ D) $b + 2b = 259$
E) NOTA

8. Factor: $6x^2 - 13x - 5$

- A) $(6x + 5)(x - 1)$ B) $(3x + 1)(2x - 5)$
C) $(6x - 1)(x + 5)$ D) $(2x - 1)(3x + 5)$ E) NOTA

9. Which one of the following equals a negative number?

- A) $(-5) + 9$
B) $(-9) + 5$
C) $9 + 5$
D) $5 + (-9) + 4$
E) $9 - (-5)$

10. Solve the system of equations: $3x + 4y = 11$
 $x - 2y = -3$

- A) $x = 1$ $y = 2$
B) $x = -1$ $y = \frac{3}{4}$
C) $x = 2$ $y = -3$
D) $x = 1$ $y = -2$
E) NOTA

11. Factor: $25x^2 - 16y^2$

- A) $(5x - 4y)^2$ B) $5(5x - 4y)$ C) $(5x + 4y)(5x - 4y)$
D) $(5x + 2y)(5x - 8y)$ E) NOTA

12. Solve: $2x^2 + 5x - 3 = 0$

- A) 3, 2 B) $-3, \frac{1}{2}$ C) $\frac{3}{2}, 1$ D) $3, \frac{1}{2}$ E) NOTA

13. If $\begin{cases} 3x + y = 10 \\ x - 4y = -1 \end{cases}$ then $y =$

- A) 1 B) 3 C) -2 D) $\frac{7}{13}$ E) -1

14. Solve: $\frac{1}{3}y + 28 = -5$

- A) -11 B) 11 C) 99 D) 96 E) NOTA

15. Solve: $3x + 17 - 5x = 12 - (6x + 3)$

- A) 2 B) 4 C) 0 D) -4 E) NOTA

16. You and three friends are eating a pizza with 12 pieces. Each person eats the same number of pieces. Let x represent the number of pieces each person eats. Which of the following equations is an algebraic model for the situation?

- A) $3x = 12$ B) $\frac{1}{3}x = 12$ C) $4x = 12$
D) $\frac{1}{4}x = 12$ E) NOTA

17. $(3x + 4)^2 =$

- A) $9x^2 + 12x + 16$ B) $9x^2 + 16$ C) $9x^2 + 24x + 16$
D) $9x + 16$ E) $25x^2$

18. Solve: $3x(x-4)(3x+5) = 0$

- A) $4, -\frac{5}{3}$ B) $-4, -\frac{5}{3}, 3, 0$ C) $-\frac{5}{3}, 4, 0$
 D) $4, -5, 0$ E) NOTA

19. One of the solutions of the equation: $3x^2 + 11x = 4$ is

- A) 0 B) $-\frac{11}{3}$ C) 4 D) $\frac{1}{3}$ E) NOTA

20. Simplify: $(3cd^6)^3(cd)^4$

- A) $27c^7d^{10}$ B) $27c^7d^{13}$ C) $9c^2d^{22}$
 D) $27c^{12}d^{22}$ E) $27c^7d^{22}$

Answers for
Algebra
Diagnostic
Pretest

21. Simplify: $(4c^4 + 1) - (7c^3 - 3) + (2c^4 + 5c^3)$

- A) $6c^4 + 2c^3 - 4$ B) $6c^4 - 2c^3 + 4$ C) $6c^4 - 2c^3 - 2$
 D) $2c^4 - 2c^3 - 2$ E) $4c + 4$

22. The number ten is raised to a power between 0 and 1. The answer has to be between which two numbers?

- A) 0 and 1
 B) 1 and 10
 C) 10 and 100 but not 5
 D) 0 and 100 but not 50
 E) -10 and 0

23. Which of the following is the least?

- A) .27 B) $\frac{1}{4}$ C) $\frac{3}{8}$ D) $\frac{2}{11}$ E) 11%

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