TEST FORM 01

Annexure 1

MATHEMATICS ACHIEVEMENT PRE TEST
CLASS 6

NAME OF THE STUDENT .....

TO BE FILLED BY THE INVESTIGATOR

STATE.....

DISTRICT .....

BLOCK / URBAN AREA.....

SCHOOL.....

TOTAL MARKS.....

MARKS OBTAIN.....

NOW YOU CAN START

Direction: In the following question, out of the four alternatives choose the correct answer and encircle the appropriate number.

1 The value of $29 + 45$ is

(a) - 55 (b) 42 (c) 74 (d) - 88

2 The value of $(- 42) + (- 51)$ is

(a) -93 (b) 93 (c) -9 (d) 9

3 The value of $(- 48) + (108)$ is

(a) -60 (b) 156 (c) -156 (d) 60

4 The value of $(-10) + 92 + 84 + (- 15)$ is

(a) 151 (b) 143 (c) 0 (d) -143

5 The value of $[- 12 - (- 15) + (-2) - 3]$ is

Direction: Fill in the blanks

11

$12 + 11 - 23 =$ .....

12

$111 + (-111) + 0 =$ .....

13

.....$+ 215 = 208$

14

$(-4) \square$ ..... $= (-64)$

15

.....$\div 158 = -2$

Direction: Write true of false for the following statements:

16 The sum of two integer is an integer. (.....)

17 The sum of an integer and its negative is zero. (.....)

18 For every integer product of positive integer with a positive integer is positive.(.....)

19 $(-2) + (-2) + (-2) + (-2) = (-8)$ (.....)

20 $1 \square a = a \square 1 = a$ for all intger .(.....)

Direction: Match the column

A	12+33	- 248	
B	11-11	45	
C	121 $\square$ 4	484	
D	124 $\square$ - 2	-2	
E	$-8 \div 4$	0	

Annexure 2

PROGRAMME 1

Instruction to Student

This is not a test this is a programme designed for you to learn the operation adding of integers.

In this program you will find numbered paragraphs These paragraphs are called frames. Read each frame carefully and answer questions given after each frames.

Check your answer from the answer key given at the end of the programme.

Frame 01

The absolute value of an integer is the numerical value of the integer regardless of its sign.
The absolute value is either zero or positive
The absolute value of $|+9|$ is 9 and $|-8|$ is 8.
What is the value of $|-109|$ = ...
If answer is correct go to frame 02, otherwise repeat frame 01

Frame 02

Rule (1)
If a and b are both positive or both negative then we add their absolute VALUES |a| and |b| and assign the sign of a and b to the sum.
Q. the sign on adding (+2) and (+3) is .....
If answer is correct go to frame 03, otherwise repeat frame 02

Frame 03

On adding to (-8) and (-6) sign is

a) **positive**
b) **negative**

If answer is correct go to frame 04, otherwise repeat frames 03 and 02

Frame 04

On adding (+29) and (+70) we get (+99)

Explanation

We follow following steps

(+ 29) + (+70) = + (29 + 70)

= + (99) = 99

Fill the following blanks

5 + (+9) = ...

If answer is correct go to frame 05 otherwise repeated frames 1 and 3.

Frame 05

For adding (-37) and (-42) we will follow these steps

(- 37) + (- 42)

= - (| – 37 | + | – 42 |)

= - (37 + 42)

= - (79)

Now add

(- 5) + (- 88) = ...

If answer is correct go to frame 6 otherwise repeat frames 1 and 5

Frame 06

Rule (2) :- If ***integers a and b are of opposite sings , then subtract the smaller*** **absolute value from the greater absolute value and assign to the result , the sign of the number with greater absolute value .**

(29) + (- 70) = - [| -70| - | 29 |]

= - [70 – 29]

= - [41]

= - 41

Q. 5 + (- 3) = ...

If answer is correct go to frame 07 otherwise repeat frames 01 and 06

Frame 07

Add the integer

(a) (- 245) + (111) = ...

(b) (2547) + (- 2548) = ...

(c) 2884 + (- 2884) = ...

If answer is correct go to frames 08 otherwise repeat frames 01 and 07

Frame 08

It we want to add 373, - 245, and 373. We follow these steps

(373) + (- 245) + (- 373)

= [(373) + (- 245)] + (- 373)

= [(373 -245) + (– 373)]

= 128 + (-373)

= - [373 -128] = - [245]
= - 245

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Q. Solve (- 623) + (5832) + (623)

= .....

If answer is correct go to frame no 09. Otherwise repeat frames no 1 and 09

Frame 09

Find the sum

(a) 373 + (– 245) + (- 373) + 145 + 3000
(b) (- 1) + (- 304) + 304 + 304 + (- 304) + 1
(c) (1) + (- 475) + (- 475) + (- 475) + (- 475) + 1900

If answer is correct CONGRATULATIONS. You learned what we wanted to Teach you thought this programme. If NOT please repeat frames 05 -09

ANSWER KEY

Frames no 01	109
Frames no 02	positive
Frames no 03	Negative
Frames no 04	14
Frames no 05	- 93
Frames no 06	2
Frames no 07	(a) – 134 (b) - 1 (c) 0
Frames no 08	- 5832
Frames no 09	(a) 2900 (b) 0 (c) 1

Programme - 2

Instruction to Student

This is not a test this is a programme designed for you to learn the operation subtraction on integers.

In this program you will find numbered paragraphs These paragraphs are called frames. Read each frame carefully and answer questions given after each frames.

Check your answer from the answer key given at the end of the program.

FRAME 01

RULE 1:-

If **a** and **b** are two integers then a – b is equal to a + (- b)

a - b = a + (....)

If answer is correct go to frame o2 otherwise repeat frames 01.

FRAME 02

We can subtract - 10 from 8 in following steps

8 - (- 10) = 8 + (10) = 18

Then (- 3987) – (- 4109) = ...

If answer is correct go to frame o3 otherwise repeat frames 01 and 02

FRAME 03

We can subtract sum of - 219 and 168 from - 25 in fooling steps

$$- \quad 25 - [\,(\,-219\,) + (\,168\,)\,]$$

$$= \quad (-25) - [-(219 - 168)]$$

Then what will be the value of [(-25) + (24) +(36)]
If answer is correct go to frame o4 otherwise repeat frames 02 and 03

FRAM 04

We can subtract sum of 123 and 478 from the sum of -125 and -455 in following steps

$$[(-125) + (-455)] - [(123) + (478)]$$

$$= \quad (-580) - (601)$$

$$= \quad -1181$$

Then solve [(412) + (123)] – [(155) + (369)]
If answer is correct go to frame o5 otherwise repeat frame 04

FRAME 05

What must be added in – 1264 to get 455.

We can solve it in following steps

Let X is added in -1264 to get 455 then

$$-1264 + X = 455$$
$$\Rightarrow \quad X = 455 + 1264 \qquad \{\text{since in transporting the number sign changes}\}$$
$$\Rightarrow \quad X = 1719$$

What must be subtracted from 455 to get (-4578)?
If answer is correct go to frame o6 otherwise repeat frame 05

FRAME 06

Each number with opposite sign of a number is additive inverse of that number.

455 is additive inverse of (-455)

Find the additive inverse of (-4698)?

If answer is correct go to frame o7 otherwise repeat frame 06

FRAME 07

Rule 2:- All Integers follows the associative law.

For example [(1236) + (4568)] + [127] = [1236] + [(4568) + (127)]

To check this we will find the value of both the sides

[(1236) + (4568)] + [127] = [1236] + [(4568) + (127)]

=> 5804 + 127 = 1236 + 4695

=> 5931 = 5931

So it follows the associative law

Check weather

[(236) + (4568)] + [6127] = [236] + [(4568) + (6127)]
Follows associative law?

If answer is correct CONGRATULATIONS. You learned what we wanted to Teach you thought this programme. If NOT please repeat frames 05 -07

PROGRAMME 3

Instruction To Student

This is not a test this is a programme designed for you to learn the operation Division of integers.

In this program you will find numbered paragraphs These paragraphs are called frames. Read each frame carefully and answer questions given after each frames.

Check your answer from the answer key given at the end of the program.

Frame 01

Rule 01: If both the dividend and the divisor are of like sign (i.e. both are positive or both negative) , the quotient is always positive .
For example

$24 \div 8 = 3$ and

$-24 \div -8 = 3$

Find : $(-18) \div (-3)$
If answer is correct go to frame 02, otherwise repeat frame 01

Frame 02

Fill in the blanks with the help of rule 1

a) $3 \div (3) =$.....
b) $8 \div (2) =$.....
c) $(-25) \div (-5) =$.....

If answer is correct go to frame 03, otherwise repeat frame 02

Frame 03

Rule 02 if the dividend and divisor are of opposite signs, then the quotient is negative.
For example

$-24 \div 8 = -3$ and

$24 \div (-8) =$ .....

If answer is correct go to frame 04 , otherwise repeat frames 03 and 02

Frame 04

Fill in the blanks with the help of rule 2

a) (- 1728)÷ (4) =.....

b) (10566)÷ (- 1)=.....

c) (- 5) ÷ (5)=.....

if answer is correct go to frame 05 otherwise repeat frames 1 and 3 .

Frame 05

Find the quotient with the help of 01 one and rule 02

a) (-1 3) ÷ (- 1)

b) (- 185)÷ (5)

c) (18) ÷ (- 6)

d) (282) ÷ (3)

if answer is correct go to frame 6 otherwise repeat frames 1 and 5

Frame 06

Find the value of

(a) 0÷ (- 9) = ...

(b) (-18)÷(- 6) = ...

(c) (20)÷ (- 5)= .....

If answer is correct CONGRATULATIONS. You learned what we wanted to Teach you thought this programme. If NOT please repeat frames 05 -09

ANSWER KEY

Frames no 01	6
Frames no 02	a) 1. b) 4 . c) 5
Frames no 03	-3
Frames no 04	a) -432. b) -10566 . c) -1
Frames no 05	a) 13. b) – 37. c) – 3 . d) 94
Frames no 06	a) 0 b) 3 c) - 4

TEST FORM 02

Annexure 3

MATHEMATICS ACHIEVEMENT POST TEST
CLASS 6

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NOW YOU CAN START

Direction: In the following question, out of the four alternatives choose the correct answer and encircle the appropriate number.

1 The value of $29 + 48$ is

(a) - 55 (b) 42 (c) 77 (d) - 88

2 The value of $(- 42) + (- 78)$ is

(a) -93 (b) 93 (c) – 120 (d) 120

3 The value of $(- 148) + (108)$ is

(a) -60 (b) 156 (c) -156 (d) - 40

4 The value of $(-10) + 92 + 184 + (- 15)$ is

(a) 251 (b) 143 (c) 0 (d) -143

5 The value of $[- 13 + (- 15) + (-2) – 4]$ is

(a) – 35 (b) 34 (c) 35 (d) 8

6 The value of $[3 – 3 + 3 – 3]$ is

(a) 0 (b) -1 (c) 2 (d) – 2

7 The value of 15 □15 is

(a) 215 (b) – 15 (c) 225 (d) 30

8 The product of (-80) with (-1) is

(a) 0 (b) - 80 (c) 80 (d) 1

9 The value of $36 \div (- 18)$ is

(a) 4 (b) 0 (c) 1 (d) - 2

10 The value of $(- 729) \div (- 729)$ is

(a) 729 (b) 1 (c) 0 (d) 0

D-161

Direction: Fill in the blanks

512 + 111 – 213 = ...

1111 + (- 1111) = ...

.....+ 2115 = 2808

(- 4) □ ..... = (- 164)

.....÷ 15 = - 5

Direction: Write true of false for the following statements:

The sum of two integer is an positive integer. (.....)

The sum of an integer and its negative is one. (.....)

For every integer product of negative integer with a positive integer is positive.(.....)

(- 22) + (- 22) + (- 22) + (- 22) = (- 48) (.....)

a ÷ 1 = a for all integer .(.....)

Direction: Match the column

A	12+38	248	
B	119-119	50	
C	125 □ 4	500	
D	124 □ 2	-4	
E	-8 ÷ 2	0	