Sanjeevani Public School

Assignment - 2020-2021

Class - VII

Subject. Maths

CH - Integers

Q-1 use positive or negative numbers to describe the following statements:

Ans

(i) 15°C below freezing point = $-15^{\circ}C$

(ii) 24°C above freezing point = $+24^{\circ}C$

3) 10 min before blast off a missile → -10 min.

2 At mid night the temperature was 0°C 2hrs later it was 5°C colder. what was the temperature then

Ans $-5^{\circ}C$

3 Write the value of :-

Ans

(i) $|-11| \rightarrow 11$

(ii) $|+18| \rightarrow 18$

(iii) $|17 - 25| = |-8| = 8$

4) Arrange the following in ascending order

(i) $-18, 7, 1, -10, 14, -21$

A.O → $-21, -18, -10, 1, 7, 14$

(ii) $3, -3, -9, -16, -1, 0$

A.O → $-16, -9, -3, -1, 0, 3$

5 Arrange the following in decending order:

(i) $-11, -16, 8, 3, -9, 4$

D.O → $8, 4, 3, -9, -11, -16$

(ii) $-25, 25, 15, -7, -3, 1$

D.O → $25, 15, 1, -7, -3, -25$

(6) Which temperature is higher:-

(i) $+8^\circ C$ or $-8^\circ C$

Ans $+8^\circ C$

(ii) $-2^\circ C$ or $-5^\circ C$

Ans $-2^\circ C$

(7) Find the value:-

(i) $+3+(-4)$

$= +3-4$

$= -1$

(ii) $-8+(-15)$

$= -8-15$

$= -23$

(iii) $-9+(+17)$

$= -9+17$

$= +8$

(8) In a quiz positive marks are given for correct answer and negative marks are given for Incorrect answers. If Jack's score in five successive rounds were 25, -5, -10, 15 and 10 what was his total at the end.

Ans Total score $= 25+(-5)+(-10)+15+10$

$= 25+15+(-5)$

$= 40+(-5)$

$= 35$

(9) Write down a pair of Integers whose

(i) Sum is -7

Ans $-4, -3$

(ii) difference is 10

$-3, 7$

(10) Write a pair of Integers whose:-

(i) sum gives an Integer smaller than both the Integers

Ans $-1, -2$

(ii) sum gives an Integer smaller than only one of the Integers.

Ans $-1, 1$

H.W Do Remaining parts.

Let us do 1.2

B 1 Multiply:-

(i) 15×6
90

II 18×-8
-144

III $29 \times (-1)$
-29

IV $(-18) \times (13)$
234

V) 32×-21
-672

VI) -61×0
0

VII) 4×-7
-28

IX) 8×-32
-256

X) $-15 \times (-9)$
135

$+ \times + = +$
$+ \times - = -$
$- \times - = +$
$- \times + = -$

2) Find the products:-

(i) $(-3) \times (-6) \times (-7)$
18×-7
-126

(ii) $2 \times (-3) \times (-4)$
-6×-4
24

III) $(-16) \times (14) \times (-13)$
224×-13
-2912

IV $(-13) \times (-14) \times (15)$
182×-15
-2730

V $5 \times -8 \times 9$
-40×9
-360

(4) What will be the sign of the product if we multiply together 7 negative Integers and one positive Integer?

Ans negative Integers

(5) What will be the sign of product if we multiply together 22 negative and 5 positive Integers?

(i) Ans positive Integer

(ii) 139 negative Integers and 24 positive Integers?

Ans negative Integer

3)

X	-6	-4	-2	0	2	4	6
-6	36	24	12	0	-12	-24	-36
-4	24	16	8	0	-8	-16	-24
-2	12	8	4	0	-4	-8	-12
0	0	0	0	0	0	0	0
2	-12	-8	-4	0	4	8	12
4	-24	-16	-8	0	8	16	24
6	-36	-24	-12	0	12	24	36

Complete the multiplication table: what special do you note in this table after completing it?

Ans (i) It is symmetrical about the diagonal joining the upper left corner to lower right corner.

(ii) The diagonal itself is symmetrical about the centre part 0 and contains only positive Integers, where as all the rows and columns contain both positive and negative Integers equal and opposite

(6) Find the Integers whose product with -1 is -26

Ans 26

(7) find the Integer whose product with -1 is -67

Ans 67

(8) find the Integer whose product with -1 is -85

Ans 85

9) Is it possible that the product of a positive Integer and a negative Integer is zero?

Ans not

H.W. Remaining parts of Q No 1 & 2.

Let us do 1.3

Q1 Find the quotient in each case:-

(i) $24 \div (-4)$

Ans -6

(ii) $-32 \div 8$

-4

III $-54 \div (-6)$

9

IV $36 \div -6$

-6

(V) $-81 \div (-3)$

27

VI $0 \div (-1)$

0

VII $-1728 \div 24$

-72

Q4 Hiranpur is a hill station, Binny lives in Hiranpur with his parents. The temperature of Hiranpur at 12 noon was $10^{\circ}C$ above zero. It decreased at the rate of $2^{\circ}C$ per hour until mid-night. On that night Binny was suffering from fever. The hospital was 5 km away from his residence It was very cold outside and there was no vehicle available in spite of this his father managed to take him to the nearest hospital

(a) At what time would be temperature of Hiranpur be $0^{\circ}C$?

Ans at 5:00 p.m

(b) At what time would the temperature of Hiranpur be $8^{\circ}C$ below zero?

Ans at 8 p.m

(c) what would be temperature of Hiranpur at mid night

$12^{\circ}C$ Below zero

(d) which value did Binny's father depict?

Loving father

5) Determine the Integer which divided by −1 gives −42

Ans 42

6) Determine the Integer which when divided by −1 gives 63

Ans −63

7) What number comes next? 2, 2, 4, 12, 48, 240

Two Parts of QNo-1

Let us do 1.4

Q2 Is the collection of Integers closed under subtraction? Justify it by giving a suitable example.

Ans Yes, when we subtract 0 from any Integer we will get an Integer

3) Is the collection of Integers closed under division? Justify your answer with an example.

Ans NO

4) Are the Integers commutative under subtraction?

Ans Not

5) Are the Integers commutative under division? Justify your answer by giving an example

Ans no

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(7) Is the collection of Integers associative under subtraction?

Yes

(8) Is the collection of Integers associative under division?

NO

(9) Find the Sum by suitable arrangements:

(i) 425 + (−207) + 75

425 + 75 + (−207) → 500 + (−207)

Ans 293

(ii) $-142 + 311 + (-58)$

Sol $-142 + (-58) + 311$

$-200 + 311$

111

10 Find the following products by suitable rearrangements:

(i) $8 \times (-35) \times 5$

$8 \times -5 \times (-35)$

$-40 \times (-35)$

$+ 1400$

(ii) $-125 \times 257 \times (-4)$

$-125 \times -4 \times 257$

500×257

$128,500$

11 Find the value of following:

(i) $15 \times 140 + 15 \times 60$

$15 [140 + 60]$

15×200

3000

II $-217 \times 151 + (-217) \times 349$

$-217 \times [151 + 349)$

-217×500

$- 108,500$

12 Multiply by suitable property

(i) -256×104

$-256 \times (100 + 4)$ by distributive property

$-256 \times 100 + -256 \times 4$

$-25600 - 1024$

$- 26624$

(ii) $7219 \times (-1005)$

$7219 \times (-1000 + -5)$

$7219 \times -(1000 + 5)$

$7219 \times -1000 + 7219 \times (-5)$

$-7219000 - 36095$

$-72,55,095$

13 Verify and name the properties:

(i) $-210 \times (-347) = (-347) \times (-210)$

L.H.S $-210 \times (-347)$

$= 7287$

R.H.S -347×-210

$= 7287$

Hence verified by commutative property of multiplication

(ii) $-1510 + 763 = 763 + (-1510)$

L.H.S $-1510 + 763$

$= -747$

R.H.S $763 + (-1510)$

$= -747$

Yes verified by commutative property by addition

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iii $[-16 + 134] + (-200) = -16 + [134 + (-200)]$

L.H.S $[-16 + 134] + -200$

$118 + -200$

$= -82$

R.H.S $-16 + [134 + (-200)]$

$= -16 + -66$

$= -82$

Hence verified by Associative property over addition

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(15) Which Integer is equal to its additive Inverse

Ans 0

Two Parts of 9, 10, 11, 12, 13