



SACRED HEART SCHOOL

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Maths

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Mathematics for Class 7

V. If a, b, c are integers, then $(a \div b) \div c \neq a \div (b \div c)$, unless $c = 1$.

Thus, division on integers is not associative.

EXAMPLE Let $a = -8, b = 4$ and $c = -2$. Then,

$$(a \div b) \div c = \{(-8) \div 4\} \div (-2) = (-2) \div (-2) = 1.$$

$$a \div (b \div c) = (-8) \div \{4 \div (-2)\} = (-8) \div (-2) = 4.$$

$$\therefore (a \div b) \div c \neq a \div (b \div c).$$

However, if $a = -8, b = 4$ and $c = 1$, then

$$(a \div b) \div c = \{(-8) \div 4\} \div 1 = (-2) \div 1 = (-2).$$

$$a \div (b \div c) = (-8) \div \{4 \div 1\} = (-8) \div 4 = (-2).$$

So, in this case, $(a \div b) \div c = a \div (b \div c)$.

VI. If a, b, c are nonzero integers and $a > b$, then

(i) $(a \div c) > (b \div c)$, if c is positive.

(ii) $(a \div c) < (b \div c)$, if c is negative.

EXAMPLES (i) $27 > 18$ and 9 is positive.

$$\therefore \frac{27}{9} > \frac{18}{9}.$$

(ii) $27 > 18$ and (-9) is negative.

$$\therefore \frac{27}{-9} < \frac{18}{-9}.$$

EXERCISE 1C

1. Divide:

(i) 65 by -13

(ii) -84 by 12

(iii) -76 by 19

(iv) -132 by 12

(v) -150 by 25

(vi) -72 by -18

(vii) -105 by -21

(viii) -36 by -1

(ix) 0 by -31

(x) -63 by 63

(xi) -23 by -23

(xii) -8 by 1

2. Fill in the blanks:

(i) $72 \div (\dots) = -4$

(ii) $-36 \div (\dots) = -4$

(iii) $(\dots) \div (-4) = 24$

(iv) $(\dots) \div 25 = 0$

(v) $(\dots) \div (-1) = 36$

(vi) $(\dots) \div 1 = -37$

(vii) $39 \div (\dots) = -1$

(viii) $1 \div (\dots) = -1$

(ix) $-1 \div (\dots) = -1$

3. Write (T) for true and (F) for false for each of the following statements:

(i) $0 \div (-4) = 0$

(ii) $(-6) \div 0 = 0$

(iii) $(-5) \div (-1) = -5$

(iv) $(-8) \div 1 = -8$

(v) $(-1) \div (-1) = -1$

(vi) $(-9) \div (-1) = 9$