ST. MICHAEL'S SCHOOL, MURI

STUDY MATERIAL CUM HOME ASSIGNMENT

CLASS - VI SUBJECT - MATHEMATICS

MULTIPLICATION OF INTEGERS

RULE 1 :. To find the product of two integers with unlike signs,we find the product of their values regardless of their signs and give a minus sign to the product.

EXAMPLES : (i) 4 × (-7) = -28

(ii) (-9) × 4 = 36

RULE 2 : To find the product of two integers with like signs,we find the product of their values regardless of their signs and give a plus sign to the product.

EXAMPLES : (i) 4 × 13 = 52

(ii) (-7) × (-9) = 63

HOME ASSIGNMENT

MULTIPLY

a) 15 by 9 b) 32 by -21

c) -12 by -9 d) -746 by -8

e) -238 by -143

DIVISION ON INTEGERS

RULE 1 : For dividing one integer by another, the two having unlike signs,we divide their values regardless of their signs and give a minus sign to the quotient.

EXAMPLES : (i) (-36) ÷ 9 = -4

(ii) 144 ÷ (-18) = -8

RULE 2 : For dividing one integer by another, the two having like signs,we divide their values regardless of their signs and give a plus sign to the quotient.

EXAMPLES : (i) 42 ÷ 7 = 6

(ii) (-84) ÷ (-21) = 4

HOME ASSIGNMENT

DIVIDE

a) (- 115) by 23 b) 168 by (-7)

c) (- 272) by (- 16) d) (- 324) by (- 27)

e) 0 by -278

TRIANGLES

Triangle : The figure formed by the three line segments with three vertices is called a triangle.

VARIOUS TYPES OF TRIANGLES

(i) EQUILATERAL TRIANGLE : A triangle having all sides equal is called an equilateral triangle.

(ii) ISOSCELES TRIANGLE : A triangle having two sides equal is called an isosceles triangle.

(iii) SCALENE TRIANGLE : A triangle having three sides of different lengths is called a scalene triangle.

PERIMETER OF A TRIANGLE : The sum of the lengths of the sides of a triangle is called its perimeter.

ANGLE SUM PROPERTY OF A TRIANGLE

The sum of the angles of a triangle is 180°, or 2 right angles.

NAMING TRIANGLES BY CONSIDERING THEIR ANGLES

(i) ACUTE TRIANGLE : A triangle each of whose angles measures less than 90° is called an acute-angled triangle.

(ii) RIGHT TRIANGLE : A triangle whose one angle measures 90° is called a right-angled triangle.

(iii) OBTUSE TRIANGLE : A triangle one of whose angles measures more than 90° is called an obtuse-angled triangle.

IMPORTANT RESULTS

RESULT 1 : Each angle of an equilateral triangle measures 60°.

RESULT 2 : The angles opposite to equal sides of an isosceles triangle are equal

RESULT 3 : A scalene triangle has no two angles equal.

EXAMPLE : **Find the angles of a triangle which are in the ratio 2: 3 : 4.**

SOLUTION : **Let the measures of the given angles be (2x)°, (3x)°,(4x)°**

Then, 2x + 3x + 4x = 180

→ 9x = 180

→ x = 20

Hence the measures of the angles are as follows :

1st angle = 2x = 2 × 20 = 40°

2nd angle = 3x = 3 × 20 = 60°

3rd angle = 4x = 4 × 20 = 80°

HOME ASSIGNMENT

1. The angles of a triangle are in the ratio 1 : 3 : 5. Find the measure of each of the angles.

2. The measure of two angles of a triangle are 72° and 58°. Find the measure of the third angle.

3. One of the acute angles of a right triangle is 50°. Find the other acute angle.

4. One of the angles of a triangle is 110° and the other two angles are equal.What is the measure of each of these equal angles?

5. The sides of a triangle are in the ratio 3 : 2 : 5 and its perimeter is 30cm. Find the length of the longest side.

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