

:-INTERNATIONAL INDIAN SCHOOL DAMMAM:-

MATHS WORK SHEET 2017—2018

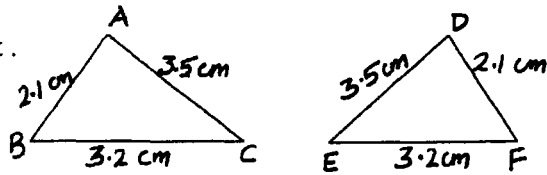
CLASS VII

CONGRUENCE OF TRIANGLES

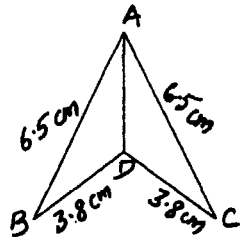
1. $\triangle ABC \cong \triangle XYZ$, write the parts of $\triangle XYZ$ that correspond to:
 (a) $\angle B$ (b) CA (c) BC (d) $\angle BAC$

2. Check if the given triangles are congruent .

If yes, write in symbolic form.



- 3.

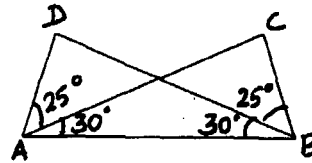


In the adjoining figure,

- (a) Is $\triangle ADB \cong \triangle ADC$?
 (b) State the pair of equal parts.
 (c) Is AD bisector of $\angle BAC$?

4. $\triangle ABC$ and $\triangle XYZ$ are such that $AB = 2.5$ cm, $AC = 3.5$ cm and $\angle A = 65^\circ$;
 $XY = 3.5$ cm, $XZ = 2.5$ cm and $\angle X = 65^\circ$. Are the two triangles congruent?
 Write in symbolic form.

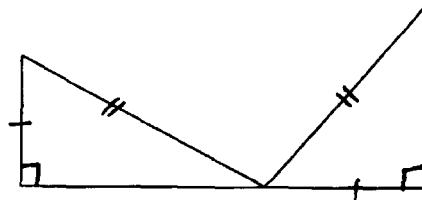
5. In the adjoining figure, prove that $\triangle CAB \cong \triangle DBA$.



6. If $\triangle ABC \cong \triangle DEF$, fill in the blanks with the help of corresponding parts of Congruent triangles:

- (a) $\angle D =$ _____ (b) $AB =$ _____
 (c) $\angle E =$ _____ (d) $DF =$ _____

7. Name the congruence condition which is required to prove the congruence of adjoining triangles.



1. Find the ratio of the following (i) 3 kg to 600g (ii) An hour to 15 minutes
 2. Convert the following fractions into percentage (i) $\frac{8}{25}$ (ii) $\frac{15}{20}$
 3. Find (i) 20% of 200 (ii) 60% of 2 kg
 4. Find the whole quantity of (i) 10% of it is 400 (ii) 20% of it is 75
 5. In a city 40 % are males and 25 % are females and the remaining are children Find the number of children if the total population is 300000.
 6. Riya spends 90 % of her salary .If her savings is Rs 900. Find her salary ,
 - 7 A shop has 500 bulbs. Out of which 5 are defective .What per cent of bulbs are defective?
 8. In a competitive examination 84% of the candidates passed and 780 failed. Find the number of candidates who appeared for the examination.
 9. Vipin's monthly salary is Rs 45000. He saves 30 % of his salary .Find his savings.
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 11. Rahim bought a bicycle for Rs 2000 and sold it for Rs 1950 , find his loss or gain %.
 12. By selling an article for Rs 9900, Seema gains 10 % , find her C P .
 13. Nishant sold his scooter for Rs 24150 making a profit of 15% . Find the cost price of the scooter .
 14. How long will it take for Rs 3500 to become Rs 3850 if interest is charged at the rate of 2 % per annum ?
 15. What rate gives Rs 1500 as interest on a sum of Rs 6000 *in 5 years ?*
 16. Riya borrowed Rs 48,000 from a co-operative bank at the rate of 5% per annum .Find the amount she has to return after 3years.
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INTERNATIONAL INDIAN SCHOOL - DAMMAM

MATHEMATICS WORK SHEET - 2017 - 18

STD - VII CHAPTER - SIMPLE EQUATIONS

- I) Write equations for the following statements
- a) The sum of twice a number and 4 is 18
 - b) Mohan is 3 years older than Sohan. The sum of their ages is 43 years.
 - c) 11 is taken away from 3 times of x and the result is 22
 - d) Twice a number subtracted from 18 gives 0
- II) Solve the following equations
- a) $-\frac{m}{3} = 2$
 - b) $2p - 1 = 23 + p$
 - c) $2x - \frac{1}{3} = \frac{1}{6} - x$
 - d) $3(2x - 1) = 5(x - 1)$
 - e) $\frac{2m}{3} - \frac{m}{4} = 10$
 - f) $5(2x - 1) = 14 - 3(x + 2)$
 - g) $80 - 5(y - 1) = 0$
 - h) $-16 = -4(2 - x)$
 - i) $7x - 15 = \frac{19}{2}$
- III) Construct 3 equations starting with $x = -4$
- IV) Check whether the value given in the bracket is a solution to the given equation or not
- a) $5x + 2 = 0$ ($x = 2/5$)
 - b) $m - 5 = -12$ ($m = -17$)
 - c) $4p - 3 = 13$ ($p = -4$)
- V) Solve the following
- a) If 45 is added to half a number, the result is triple the number. Find the number.
 - b) 7 times a number is 12 less than 13 times the same number. Find the number.
 - c) The age of Sohan Lal is 4 times that of his son Amit. If the difference of their ages is 27 years, find the age of Amit.
 - d) The length of a rectangle is 2 times its breadth. The perimeter of the rectangle is 180cm. find the length and breadth of the rectangle.

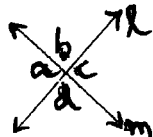
- e) A number when added to its half gives 72. Find the number.
- f) Each of two equal sides of an isosceles triangle is twice as large as the third side. If the perimeter of the triangle is 30cm find the length of each side of the triangle.
- g) In a class of 49 students, the number of girls is $\frac{1}{6}$ times the number of boys. Find the number of boys and girls in the class.
- h) Tanya will be 4 times her present age after 15 years. How old is she now?

INTERNATIONAL INDIAN SCHOOL , DAMMAM

Mathematics worksheet Grade-7

LINES AND ANGLES.

- The angle between North and East and North and West form _____ pair of angles. (Allied, Complementary, Supplementary)
- Out of a pair of complementary angles one is $\frac{2}{7}$ th of the other. Find the angles.
- Find the measure of an angle whose complement is 79° .
- Angles $(x - 10^\circ)$ and $(190^\circ - x)$ form _____ pair of angles.
- Lines 'l' and 'm' intersect at a point. Which of the following is false?



- (i) $a=c$ (ii) $a=d$ (iii) $b=d$ (iv) $a+d=180^\circ$. fig:1

- In the figure (fig :2), CD intersects AB at F. $\angle CFB = 50^\circ$ and $\angle EFA = \angle AFD$. Find the measure of EFC.

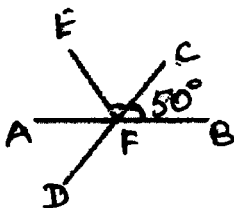


fig:2

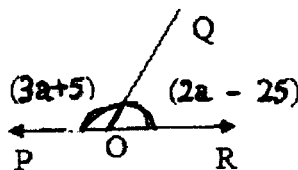


fig:3

- Find 'a' if POR is a line in the figure 3.
- Find the measure of an angle which is four times its supplement.
- If the complement of an angle is 62° , find its supplement.
- The difference between two supplementary angles is 40° . Find the angles.
- Two complementary angles are in the ratio 4:5. Find the greater of the two angles.

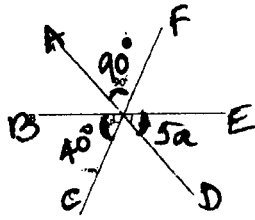


fig:4

- Find the value of 'a' from figure 4.

- Which of the following form adjacent angles? Give reason.

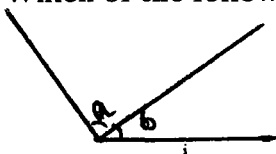
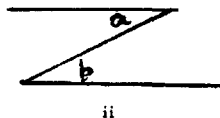
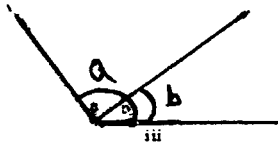


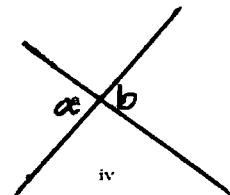
fig:5



ii



iii



iv

- In fig: 6 PQ is parallel to ST and OR is the transversal. If $a:b$ is in the ratio 3:2, find 'e'.

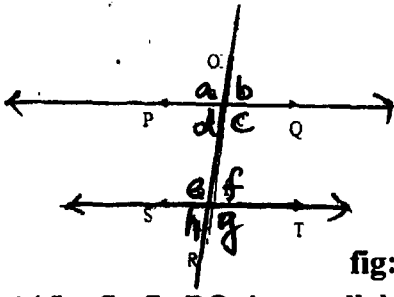


fig:6

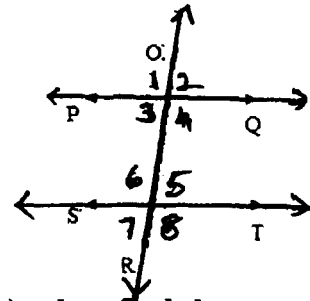


fig:7

14. In fig:7 PQ is parallel to ST. If $\angle 1 = (2a+b)$ and $\angle 6 = (3a - b)$, then find the measure of $\angle 2$ in terms of b.

15. Write all pairs of supplementary angles in figure 8.

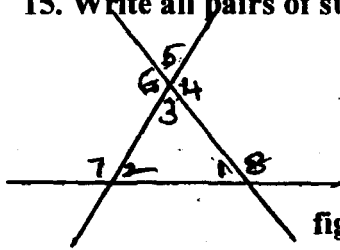


fig:8

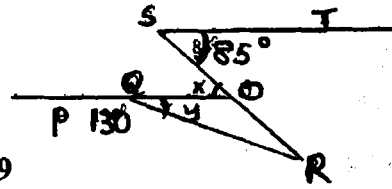


fig:9

16. In fig:9, PQ is parallel to ST. Find the value of $x+y$.

17. In fig:10, PQ and ST intersect at O. If $\angle PQR = 90^\circ$ and $x:y = 3:2$, find z.

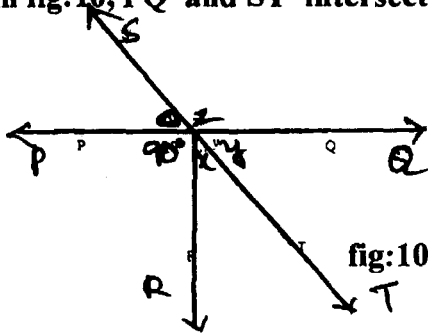


fig:10

INTERNATIONAL INDIAN SCHOOL DAMMAM
CLASS-- 7 WORK SHEET (2017-18) CHAPTER -- 1

INTEGERS

1. Find the sum of

[a] -24 and -30 [b] $-15 + -16$

2. Subtract -7 from -8

3. Find the product of [a] -25×-120 [b] $+56 \times -47$

4. Evaluate [a] $-450 \div [3+6]$ [b] $(-36) \div (12 + 0)$

5. Write down a pair of integers whose [a] sum is -5 [b] difference is -5

6. Write down a pair of negative integers whose sum is -8

7. Verify and name the property used $20 \times -4 + 20 \times -7 = 20 [-4 + -7]$

8. Simplify by using suitable properties

[a] $-25 \times 24 \times -4$ [b] $75 \times [-105]$ [c] $[-55] \times 99 + [-55]$ [d] -47×98

9. An elevator descends into a mine shaft at the rate of 3 m per minute .

[a] What will be its position after 1 hour ?

[b] If it begins to descend from 20 m above the ground , what will be the position after 25 minutes?

10. A cooling machine requires the room temperature to be lowered from 50° C at the rate of 5° C every hour. What will be the temperature after 8 hours after process begins ?

11. The temperature at 12 noon was 18° C above zero. If it decreases at the rate of 3° C per hour, until midnight , at what time would be the temperature be 12° below zero ?

12. An elevator descends into a mine shaft at the rate of 5m/minute .If the descent starts from 15m above the ground level, how long will it take to reach - 385 m ?

13. In a test (+5) marks are given for every correct answer and (-1) marks are given for every incorrect answer. (a) Rohit answered all the questions and scored 30 marks though he got 10 correct answers .

(b) Joy also answered all the questions and scored (-14) marks though his 8 questions were correct .Find the number of questions incorrectly attempted by each one of them?

INTERNATIONAL INDIAN SCHOOL , DAMMAM

MATHS WORKSHEET (2017 – 18)

CLASS : 7

CHAPTER : ALGEBRAIC EXPRESSIONS

- 1) Write an algebraic expression for the following :
 - i) Sum of two numbers x and y multiplied by one third of the number z .
 - ii) Half of number n subtracted from seventy.
 - iii) Thrice of a number x added to twice of number y .
 - iv) Four times a number m added to five times a number n .
 - v) The product of two numbers p and q added to their difference.

- 2) Write the coefficient of :
 - i) x in $25xyz^2$
 - ii) n^2 in $-131mn^2q$
 - iii) y in $-46x^3yz^3$
 - iv) z^2 in $59xy^2z^2$

- 3) Write the numerical coefficient of :
 - i) $-56xy$, ii) $264p^2q^2$, iii) $34n^2+(-20)n^2$

- 4) Draw a tree diagram for each expression:
 - i) $3ab^2 - 4ab + 6a$
 - ii) $-11x^2y^2 - 9x^2y - 4xy^2 - 8$
 - iii) $7m^2n - 3mn + 6n^2$

- 5) Identify the terms and factors in the expressions given below:
 - i) $-pq+q^2$, ii) $5x+3y+4z^2$

- 6) State whether the given pair of terms is of like or unlike terms:
 - i) $5x$, $-\frac{4}{7}x$, ii) $-46a$, $-46b$, iii) $8xy$, $-41yx$, iv) $6m^2n$, $6mn^2$

- 7) Simplify combining like terms:
 - i) $8x+42-11x+19x$
 - ii) $x-(x-y)+y-(y-x)$
 - iii) $7x^2y - 4xy^2 + 3x^2 + 11x^2y - 8xy^2 - 4x^2$
 - iv) $(5a^2 + 6b - 7) - (9b + 8 - 4a^2)$

8) Add:

i) $8a^2 - 4b^2 + 5c^2, -3a^2 + 6c^2, 7a^2 + 6b^2 - 3c^2$

ii) $5p^2q^2 + 4pq - 3, -15p^2q^2, 20 - 8pq + 7p^2q^2$

iii) $-5x^2 + 4y^2 - 9z^2, 6y^2 - 4x^2 + 8z^2, 7y^2 - 8z^2$

iv) $4mn^2, -6m^2n, 8mn^2, -3mn^2$

9) Subtract

i) $6m^2 + 2n^2 - 4q^2$ from $2m^2 - 7n^2 + 2q^2$

ii) $8x^2 + 3y^2 - 5z^2$ from 0

iii) $p(q - 8)$ from $q(p - 4)$

iv) $-2a^2 - 4a + 10$ from $9a - 4$

10) What should be added to $3xy - 4y^2 + 2x^2 - 5$ to get $6x^2 + 6y^2 - 8xy + 4$?

11) What should be subtracted from $x^3 - 3y^2 + 4xy + 8$ to get $5y^2 - 6xy - 9$?

12) What should be taken away from $3m^2 - 4n + 4$ to get $m^2 + 6n$?

13) Subtract the sum of $(3x^2 + 2xy + 2y^2)$ and $(-3x^2 - 4y^2)$ from the sum of

$(4x^2 - 5xy + 4y^2)$ and $(-3xy - 5y^2)$.

14) From the sum of $(4p^2 - 3pq + 6q^2)$ and $(-8pq - 3q^2)$, subtract $3p^2 + pq - 4q^2$.

15) Find the value of the expression when $a = 2, b = 1$

i) $a^2 + 3ab - 2a$, ii) $-3a^2 - 4ab + 5b^2$

16) Simplify the expressions and find their value when $x = -1$.

i) $2(x^2 + 3x - 4) + 2x - 6$

ii) $-8x + 9 - 4x - 16$

17) What should be the value of 'a' if the value of $3x^2 - 2x + 4a$ is equal to -4, when $x = -2$?

INTERNATIONAL INDIAN SCHOOL DAMMAM

MATHEMATICS WORKSHEET (2017-18)

CHAPTER 8 [COMPARING QUANTITIES]

CLASS 7

1. Find the ratio of the following (i) 3 kg to 600g (ii) An hour to 15 minutes
2. Convert the following fractions into percentage (i) $\frac{8}{25}$ (ii) $\frac{15}{20}$
3. Find (i) 20% of 200 (ii) 60% of 2 kg
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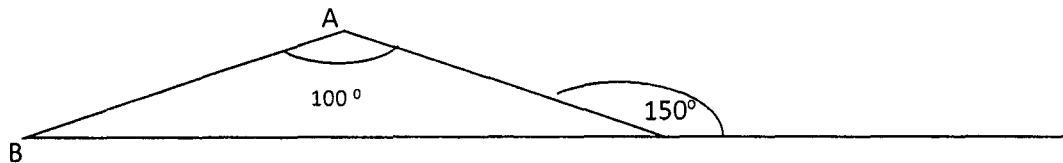
INTERNATIONAL INDIAN SCHOOL, DAMMAM

MATHS WORKSHEET 2017-18

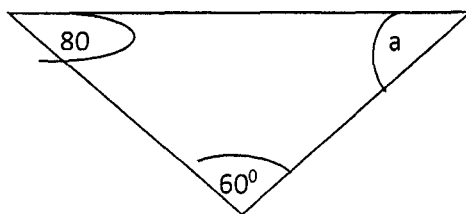
CLASS:VII

TRIANGLES AND ITS PROPERTIES

1. A/An ----- join the vertex of a triangle to the midpoint of the opposite side
(a) Altitude (b) median (c) angle bisector (d) hypotenuse
2. The perpendicular distance from one vertex to the opposite side is called -----
(a) Altitude (b) median (c) angle bisector (d) hypotenuse
3. An exterior angle of a triangle is equal to the sum of its -----
(a) Interior angles (b) acute angles (c) exterior angles (d) interior opposite angles
4. The measure of $\angle B =$ -----

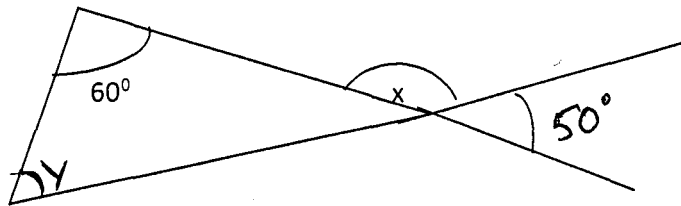


5. The value of a in the figure is -----

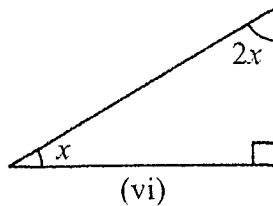
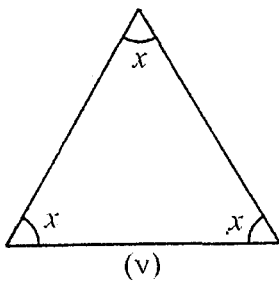


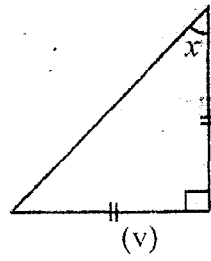
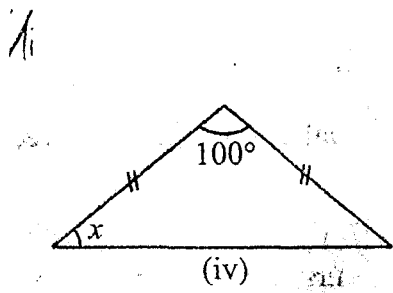
6. If one acute angle of a right angle is 35° then the other angle is -----
7. Which of the following doesn't represent the three sides of a triangle
A) 13 c.m, 14 c.m, 27c.m
B) 8 c.m, 8c.m, 8 c.m
C) 3 c.m, 4c.m, 5 c.m
D) 5 c.m, 5 c.m, 4 c.m
8. Which of the following statement is correct?
A) A triangle can have two right angles

- B) A triangle can have two obtuse angles
 - C) A triangle can have all angles less than 60°
 - D) A triangle can have three acute angles
9. If two small sides of a right angled triangle are 13c.m then the square of the hypotenuse is -----
10. In an isosceles triangle ----- are equal.
11. Find the value of x and y in the following figures

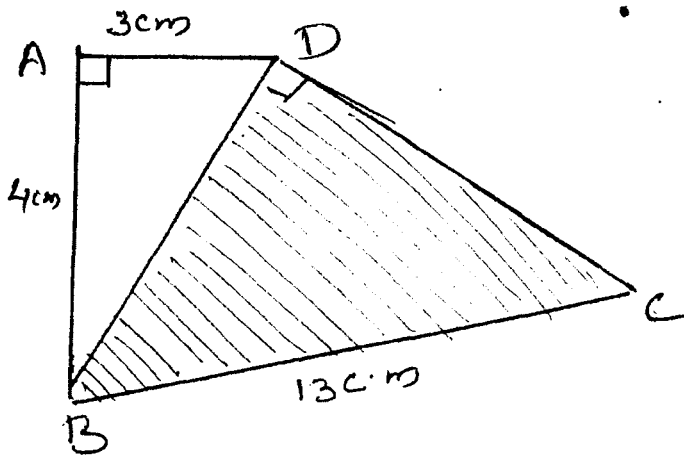


12. The three angle of triangle are in the ratio 2:3:4 , find all angles.
13. The lengthsof two sides of a triangle are 10 c.m and 15 c.m . Between what two measures should the length of the third side fall?
14. PS is a median of triangle PQR. Is $PQ + QR + RP > 2 PS$?
15. Find the perimeter of the rectangle whose length is 11c.m and a diagonal is 61c.m
16. If the length of a rope tied to the top of a coconut tree of height 12m and to the bottom of a pole is 37m , then find the distance between the base of the tree and the pole
17. The diagonals of a rhombus measure 30c.m and 40c.m . Find its perimeter.
18. ABCD is a quadrilateral. Is $AB + BC + CD + DA < 2(AC + BD)$
19. Find the angle of x from the below figures





20. Find the perimeter of the shaded triangle from the given figure, given that $\angle A = \angle D = 90^\circ$



INTERNATIONAL INDAIN SCHOOL, DAMMAM
MATHS WORKSHEET

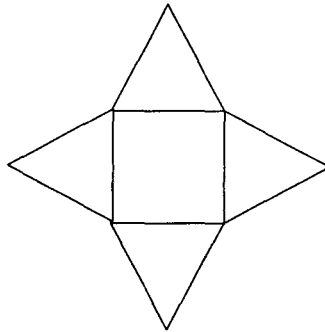
CLASS – VII

CHAPTER – VISUSLISING SOLID SHAPES

I. Match 3D Shapes with their nets:

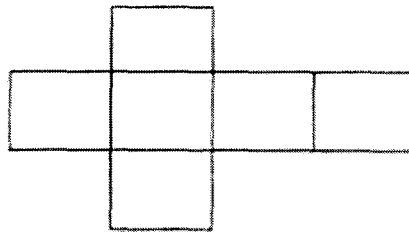
i. Cube

a.



ii. Cuboid

b.



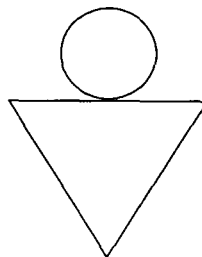
iii. Cone

c.



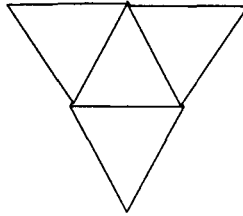
iv. Cylinder

d.



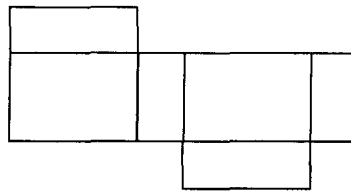
v. Square Pyramid

e.



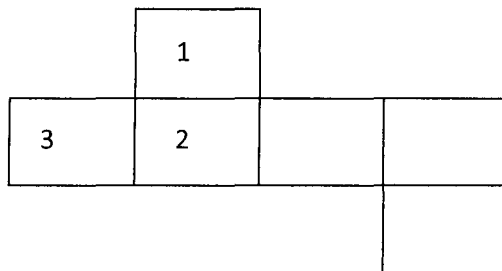
vi. Tetrahedron

f.



II. Fill in the blanks:

1. A _____ is a Skeleton outline of a solid that can be folded to make it
2. The Two Sketches of a Solid are _____ and _____.
3. The Sketch of Solids in which the measurements are kept Proportional is _____.
4. Insert suitable numbers in the blanks for the given net to make dice.



III. Answer the following Questions:

1. The Two dice are placed side by side as 4 + 3 what would be the total of face opposite to it.
2. If the length of each dice is 2 cm, what are the dimensions of cuboid formed when two dice are placed side by side.
3. If 4 Cubes each with 2 cm edge are placed side by side to form a cuboid, then say what could be its l, b, h.

INTERNATIONAL INDIAN SCHOOL – DAMMAM.

CLASS : VII MATHEMATICS WORKSHEET- 2017-2018.

PERIMETER AND AREA.

I Fill in the blanks.

- a) Side of a square whose perimeter 64 cm is _____.
- b) The area of a rectangle is 270 m^2 . If the length is 70 m, its breadth is _____.
- c) $1 \text{ Ha} = \text{_____} \text{ m}^2$
- d) Perimeter of a rectangle having length 4m and area 12 m^2 is _____
- e) The ratio of circumference to the diameter of a circle is _____.
- f) $400 \text{ mm}^2 = \text{_____} \text{ cm}^2$
- g) Perimeter of a of a semicircular disc whose diameter 20 cm is _____.

II Answer the following.

1. Area of a triangle is 200 cm^2 . If one side of the triangle is 25cm, find the corresponding altitude.
2. The window of a room is 25m long and 16 m wide. If the carpenter works to put a metallic frame around it which costs Rs150 per meter, find the total cost of the metallic frame.
3. The area of a square and a rectangle are equal. If the side of the square is 30 cm and breadth of the rectangle is 25 cm, find the length of the rectangle.
4. A wire is in the shape of a square whose side is 16 cm. If the same wire is rebent into the shape of a rectangle of length 20 cm, find its breadth. Also find which encloses more area, the square or the rectangle.
5. The perimeter of a square garden is 560 m. Find the area of the garden in hectares.
6. The diameter of a semicircular protractor is 7 cm. Find its perimeter.
7. Find the circumference and area of a circle whose diameter is 40 cm. (take $\pi = 3.14$).
8. Find the radius of a circle if the circumference is 66 cm. (take $\pi = \frac{22}{7}$).
9. Circumference of a circle is 62.8 cm. Find the radius and area of the circle? ($\pi = 3.14$)
10. Find the area of a right-angled triangle, whose legs are 15 cm & 12 cm.
11. Area of a triangle is equal to the area of a square. Find the base of the triangle if its altitude is 80 m and perimeter of the square is 160 m.
12. Two triangles having equal area have bases in the ratio 3 : 4. Find the ratio of their heights.

13. One side of a parallelogram is 26 cm and corresponding altitude is 14 cm. Find the length of the adjacent side of the parallelogram if the height of the altitude to the adjacent side is 13 cm.
14. From a circular sheet of radius 14 cm, a circle of radius 5 cm is removed. Find the area of the remaining sheet.
15. The diameter of a wheel is 91 cm. find the distance covered by it in 10 rounds. Also find the number of turns required to cover a distance of 1716 m. (take $\pi = \frac{22}{7}$)
16. A rectangular park is 45 m long and 30 m wide. A path 3 m wide is constructed all around outside the park. Find the area of the path and also the cost of constructing the path at the rate of Rs30 per m^2 .
17. A path 1m wide is built along the border inside a square park of side 20m. Find the cost of covering the remaining portion of the park by grass at the rate of Rs 20 per square meter.
18. Two crossroads each of width 3 m cut at right angles through the centre of a rectangular park of length 58 m and breadth 34 m and parallel to its sides. Find the area of the crossroads in hectare. Also find the cost of construction of the roads at the rate of Rs50 per m^2 .
19. From a circular sheet of radius 21 cm, two circles of radius 3.5 cm and a rectangle of length 4 cm and breadth 2.5 cm are removed. Find the area of the remaining sheet.
20. In parallelogram ABCD, DL and BM are altitudes drawn to the sides AB and CD respectively. If the area of the parallelogram is $1575cm^2$, $AB = 45$ cm and $AD = 31.5$ cm , find the length of DL and BM.

INTERNATIONAL INDAIN SCHOOL, DAMMAM
MATHS WORKSHEET

CLASS – VII

CHAPTER – RATIONAL NUMBERS

1. Write four more rational number in each of the given pattern.

(i) $\frac{-4}{6}, \frac{-5}{12}, \frac{-6}{18}, \dots, \dots, \dots, \dots$ (ii) $\frac{-1}{8}, \frac{2}{-16}, \frac{3}{-24}, \dots, \dots, \dots, \dots$

2. Find four rational number equivalent to each of the following.

(i) $\frac{-5}{3}$ (ii) $\frac{2}{5}$ (iii) $\frac{-5}{-9}$

3. Do $\frac{4}{-16}$ and $\frac{-7}{28}$ represent the same rational number?

4. Write each of the following rational in standard form

(i) $\frac{-21}{-70}$ (ii) $\frac{-27}{45}$ (iii) $\frac{24}{-18}$ (iv) $\frac{-5}{-3}$

5. Express $\frac{7}{9}$ as rational number with denominator (i) -45 (ii) 99

6. Express $\frac{12}{-8}$ as a rational number with numerator (i) 72 (ii) -48

7. Fill in the blank

(a) $\frac{-8}{3} = \frac{\quad}{-12} = \frac{-24}{\quad} = \frac{\quad}{27}$

(b) $\frac{7}{13} = \frac{\quad}{-39} = \frac{-49}{\quad} = \frac{63}{\quad}$

8. Compare the following rational numbers.

$\frac{8}{3} \quad \square \quad \frac{-24}{15}, \quad \frac{-1}{6} \quad \square \quad \frac{-2}{-3}, \quad \frac{-5}{5} \quad \square \quad \frac{1}{5}, \quad \frac{1}{3} \quad \square \quad 0$

9. Represent the following on Number line.

a. $\frac{7}{4}$, b. $\frac{-6}{8}$, c. $\frac{-3}{-5}$, d. $\frac{1}{4}$

10. Find 5 rational numbers between

(a) -5 and -6 (b) $\frac{3}{4}$ and $\frac{-4}{2}$ (c) $\frac{-5}{6}$ and $\frac{-7}{6}$

11. (a) Arrange the following rational numbers in the ascending order

(i) $\frac{3}{32}$, $\frac{2}{16}$, $\frac{-4}{8}$, $\frac{-1}{4}$ (ii) $\frac{6}{5}$, $\frac{7}{-10}$, $\frac{12}{30}$, $\frac{-3}{15}$

(b) Arrange the following rational numbers in the descending order

(ii) $\frac{1}{6}$, $\frac{-4}{12}$, $\frac{13}{36}$, $\frac{1}{-24}$ (ii) $\frac{1}{-30}$, $\frac{-6}{15}$, 8, $\frac{1}{-10}$

12. Evaluate

(a) $\frac{-4}{3} + \frac{(-6)}{9}$ (b) $\frac{1}{3} + \frac{8}{9}$ (c) $\frac{-3}{5} - \frac{(-15)}{7}$ (d) $\frac{-6}{3} + 0$

(e) $2\frac{1}{5} - 5$ (f) $\frac{-6}{7} - (\frac{-30}{42})$ (g) $\frac{-1}{7} + \frac{14}{7} - (-3)$ (h) $\frac{-3}{5} + \frac{6}{5} - \frac{1}{5}$

(i) $\frac{17}{10} + \frac{1}{-6} + \frac{4}{8}$

13. (a) Find the additive inverse of -7, $\frac{3}{6}$, $\frac{1}{-5}$, $\frac{-4}{9}$, 1

(b) Find the Reciprocal of $\frac{-7}{2}$, $\frac{4}{3}$, 6, -1, $\frac{-9}{-5}$

14. Multiply

(a) $\frac{3}{7} \times \frac{(-2)}{5}$ (b) $\frac{11}{4} \times \frac{2}{5}$ (c) $\frac{8}{-5} \times \frac{-5}{8}$ (d) $\frac{4}{3} \times (-9)$

(e) $1\frac{5}{3} \times \frac{(-7)}{(-4)}$ (f) $3\frac{1}{4} \times \frac{8}{26}$

15. Simplify:

$$(i) \frac{-7}{18} \times \frac{6}{28} \quad (ii) \frac{-7}{54} \times -18$$

16. Find the value of

$$(a) 4 \div \frac{4}{3} \quad (b) \frac{-1}{7} \div \frac{3}{7} \quad (c) \frac{-5}{18} \div \frac{-2}{6} \quad (d) \frac{-1}{13} \div \frac{1}{7}$$

$$(e) \frac{2}{12} \div \left(\frac{-4}{60} \right) \quad (f) \frac{-4}{5} \div 3$$

-:INTERNATIONAL INDIAN SCHOOL DAMMAM:-

MATHS WORK SHEET 2017—2018

CLASS VII

SYMMETRY

1. A figure has **line symmetry**, if there is a line about which the figure may be folded so that the two parts of the figure will coincide.
2. Regular polygon have equal sides and equal angles. They have multiple (ie. More than one) lines of symmetry.
3. Each regular polygon has as many lines of symmetry as it has sides.

Regular polygon	Regular hexagon	Regular pentagon	Square	Equilateral triangle
Number of lines of symmetry	6	5	4	3

4. Mirror reflection leads to symmetry, under which the left-right orientation have to be taken care of.
5. If, after a rotation, an object looks exactly the same, we say that it has a **rotational symmetry**.

Answer the following:-

1. State the number of lines of symmetry for the following figures:
(a) An equilateral triangle (b) an isosceles triangle (c) A scalene triangle
(d) a square (e) a rectangle (f) a rhombus
(g) a parallelogram (h) a quadrilateral (i) a regular hexagon
(j) a circle
2. What letters of the English alphabet have reflectional symmetry about .
(a) a vertical mirror (b) a horizontal mirror
(c) both horizontal and vertical mirrors
3. Give three examples of shapes with no line of symmetry.
4. What other name can you give to the line of symmetry of
(a) An isosceles triangle? (b) a circle?
5. Name any two figures that have both line symmetry and rotational symmetry.