

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 in to 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?

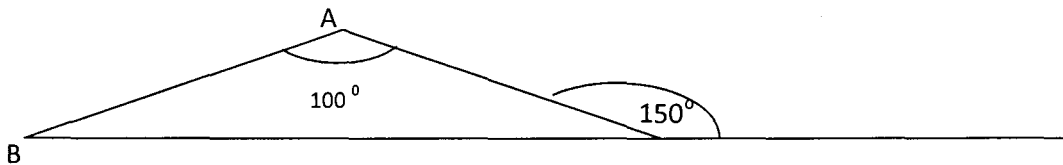
INTERNATIONAL INDIAN SCHOOL, DAMMAM

MATHS WORKSHEET 2017-18

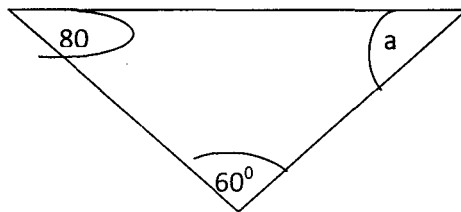
CLASS:VII

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 $\angle B =$ -----

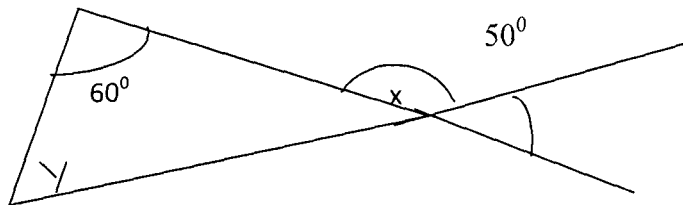


5. The value of a in the figure is -----

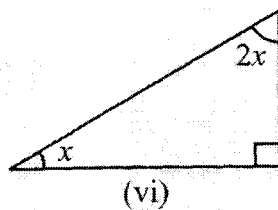
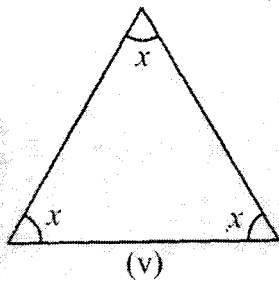


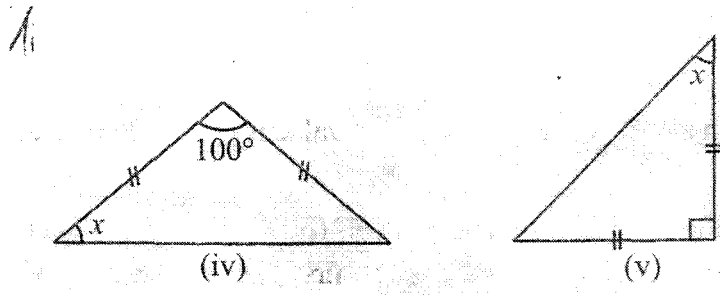
6. If one acute angle of a right angle is 35° then the other angle is -----
7. Which of the following doesn't represent the three sides of a triangle
A) 13 c.m, 14 c.m, 27c.m
B) 8 c.m, 8c.m, 8 c.m
C) 3 c.m, 4c.m, 5 c.m
D) 5 c.m, 5 c.m, 4 c.m
8. Which of the following statement is correct?
A) A triangle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

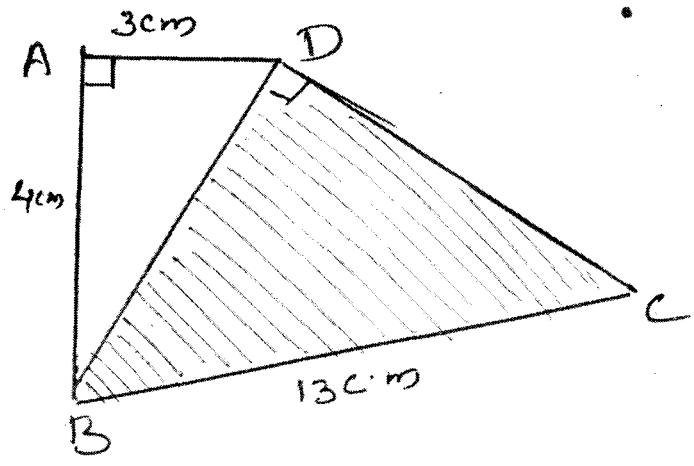


12. The three angle of triangle are in the ratio 2:3:4 , find all angles.
13. The lengths of two sides of a triangle are 10 c.m and 15 c.m . Between what two measures should the length of the third side fall?
14. PS is a median of triangle PQR. Is $PQ + QR + RP > 2 PS$?
15. Find the perimeter of the 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 37.m , 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 $\angle A = \angle D = 90^\circ$



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MATHS WORK SHEET 2017—2018

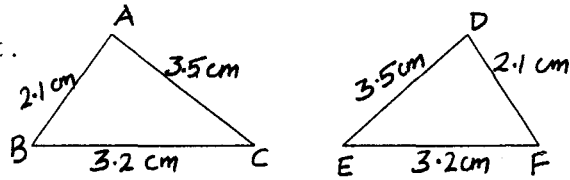
CLASS VII

CONGRUENCE OF TRIANGLES

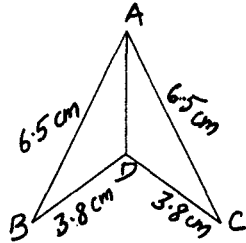
1. $\triangle ABC \cong \triangle XYZ$, write the parts of $\triangle XYZ$ that correspond to:
(a) $\angle B$ (b) CA (c) BC (d) $\angle BAC$

2. Check if the given triangles are congruent .

If yes, write in symbolic form.



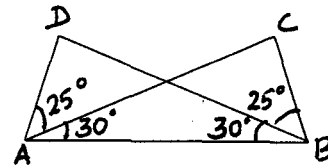
- 3.



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.

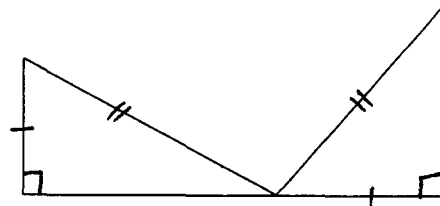
5. In the adjoining figure, prove that $\triangle CAB \cong \triangle DBA$.



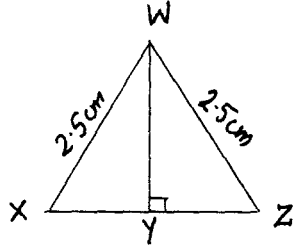
6. If $\triangle ABC \cong \triangle DEF$, fill in the blanks with the help of corresponding parts of Congruent triangles:

- (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.



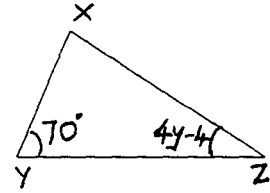
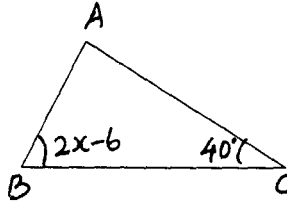
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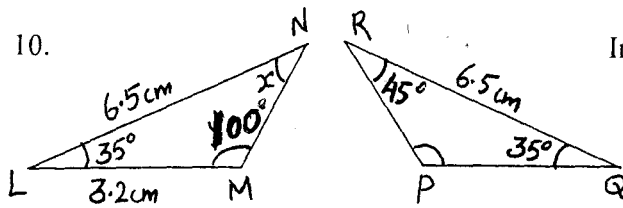
In the given figure, prove that $\triangle WYX \cong \triangle WYZ$.

9. If $\triangle ABC \cong \triangle XYZ$, find:

- (a) x
- (b) y
- (c) x + y



10.

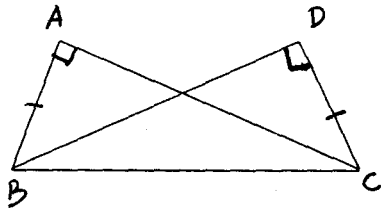


In the given figure, $\triangle LMN \cong \triangle QPR$.

Find the value of:

- (a) Side **QP**
- (b) x
- (c) LP
- (d) LR

11.

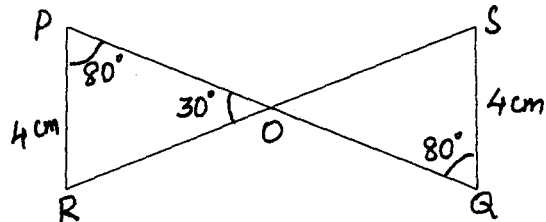


In the given figure, $\angle A$ and $\angle D$ are right angles. If $AB = CD$, prove that $\triangle ABC \cong \triangle DCB$.

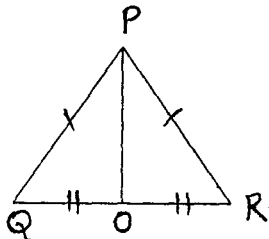
12. If $\triangle ABC \cong \triangle XYZ$, $\angle X = 65^\circ$ and $\angle C = 55^\circ$, then find $\angle Y$.

13. In the given figure, can you apply ASA congruence rule and conclude that

$\triangle POR \cong \triangle QOS$?



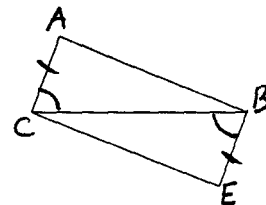
14.



In the figure PQR is an isosceles triangle in which $PQ = PR$. If O is the midpoint of QR, show that $\triangle PQO \cong \triangle PRO$ by SSS congruence rule.

15. In the adjoining figure,

- (a) Is $\triangle ACB \cong \triangle ECB$? Give reason.
- (b) Is $\angle A = \angle E$? Why or Why not?



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
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.
10. The population of a town decreased from 50000 to 40000. Find the percentage decrease .
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 3 years.

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 INDAIN SCHOOL, DAMMAM
MATHS WORKSHEET

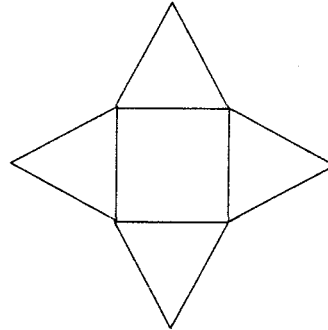
CLASS – VII

CHAPTER – VISUSLISING SOLID SHAPES

I. Match 3D Shapes with their nets:

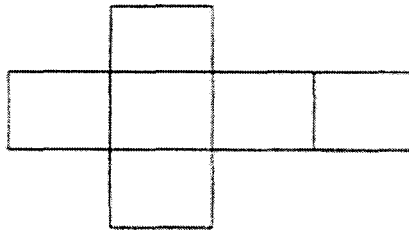
i. Cube

a.



ii. Cuboid

b.



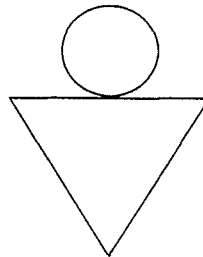
iii. Cone

c.



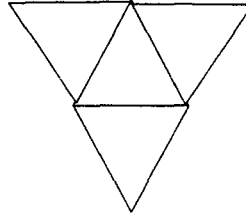
iv. Cylinder

d.



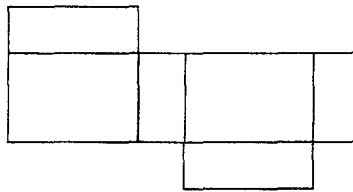
v. Square Pyramid

e.



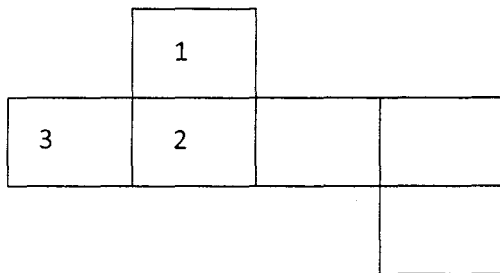
vi. Tetrahedron

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.