

INTERNATIONAL INDIAN SCHOOL, RIYADH
POST BOX NO.: 89788, RIYADH – 11692 (K.S.A)



WORK SHEET

CLASS: 8th SUBJECT: Mathematics LESSON: Squares and Square Roots
2011-12 PREPARED BY: Subj. Teachers

1. Find the square root of the following numbers by prime factorisation.
361, 729, 4489, 3025, 7056, 8281
2. Find the smallest number by which 2475 must be multiplied to get a perfect square.
3. Find the smallest number by which 3528 must be divided, to get a perfect square.
4. Find the least perfect square number exactly divisible by each one of the numbers 4, 5 and 10.
5. Find the square root of each of the following by long division Method.
961, 1089, 7396, 6889, 5929, 10201
6. Find the least number which must be subtracted from 2361 to make it a perfect square.
7. Find the least number which must be added to 5678 to make it a perfect square.
8. Find the greatest three digit number which is a perfect square.
9. Find the square root of each of the following:
i) 39.69 ii) 44.89 iii) 0.0625 iv) 0.01 v) $6\frac{1}{4}$
10. Find the length of the side of a square field of area 7569 Sq.m. Hence find its perimeter.
11. Find the least four digit perfect square number.
12. Find i) $\sqrt{18} \times \sqrt{8}$ ii) $\sqrt{15} \times \sqrt{12}$ iii) $\sqrt{14.4} \times \sqrt{0.1}$ iv) $\sqrt{12} \times \sqrt{27}$

13. Using the identity $a^2 - b^2 = (a+b)(a-b)$, find
 i) $25^2 - 24^2$ ii) $5^2 - 4^2$ iii) $3.5^2 - 2.5^2$

14. Solve for x : i) $x^2 - 1 = 24$ ii) $x^2 + 1 = 65$ iii) $2x^2 - 1 = 17$
 iv) $x^2 = 1 + 3 + 5 + 7 + 9 + 11 + 13 + 15$

15. Express 100 as the sum of ten odd numbers

16. How many numbers are there between the squares of
 i) 12 and 13 ii) 3 and 4

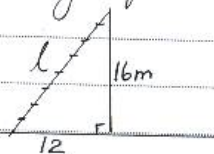
17. Find the other two members of the Pythagorean triplets, one of whose members is:

i) 10 ii) 14 iii) 20 iv) 26

18. The length and breadth of a rectangle are respectively 15 cm and 8 cm. Find its diagonal

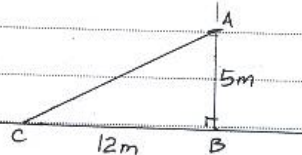
20. In an auditorium, the number of rows is equal to the number of chairs in each row. If there are 1764 chairs in the auditorium, find the number of chairs in each row.

21. A ladder reached a window 16 m high from the ground on placing it against a wall at a distance of 12 m. Find the length of the ladder (l)



22. A tree is cut off at a height of 5 m from the ground and its top touches the ground at a distance of 12 m. Find the original height of the tree.

23. Find the area of a triangle if
 $\text{area of } \Delta = \sqrt{s(s-a)(s-b)(s-c)}$
 given $a = 9$ cm, $b = 12$ cm,
 $c = 15$ cm and $s = 18$ cm

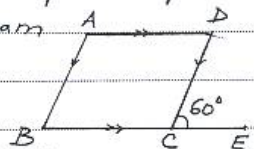
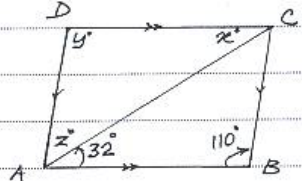


INTERNATIONAL INDIAN SCHOOL, RIYADH
POST BOX NO.: 89788, RIYADH - 11692 (K.S.A)



WORK SHEET

CLASS : 8th SUBJECT : Mathematics LESSON : Understanding Quadrilaterals
2011-12

1. Three angles of a quadrilateral are 100° , 92° and 48° .
Find the fourth angle.
2. The four angles of a quadrilateral are in the ratio $3:4:5:6$. Find their measures.
3. In a parallelogram ABCD, $\angle A = (3x - 10)^\circ$ and $\angle B = (5x + 30)^\circ$.
find x and hence find all the angles of the parallelogram.
4. In the figure, ABCD is a parallelogram. If $\angle DCE = 65^\circ$, find $\angle A$ and $\angle B$.

5. ABCD is an isosceles trapezium with $AB \parallel DC$ and $AD = BC$. If $\angle A = 130^\circ$, find $\angle B$, $\angle C$ and $\angle D$.
6. In a kite ABCD, $AB = AD$ and $BC = DC$. If $\angle A = 80^\circ$ and $\angle C = 40^\circ$, find $\angle B$ and $\angle D$.
7. In the figure, ABCD is a parallelogram. If $\angle CAB = 32^\circ$, $\angle ABC = 110^\circ$ find x° , y° and z° .

8. ABCD is a trapezium with $AD \parallel BC$.
 $\angle A = (3x + 1)^\circ$ and $\angle B = (2x + 4)^\circ$. Find x .
9. In a trapezium ABCD, $AB \parallel DC$. If $\angle A : \angle D = 3:2$ and $\angle B : \angle C = 4:5$, find all the angles of the trapezium.

10. In a parallelogram PQRS, $\angle P$ is 30° more than $\angle Q$. Find the measures of all the angles.
11. The adjacent angles of a parallelogram are in the ratio 2:7. Find their measures.
12. P is a point in the interior of $\angle AOB$.
 $PM \perp OA$ and $PN \perp OB$. If $\angle AOB = 60^\circ$, find $\angle P$.
13. One of the diagonals of a rhombus is equal to one of its sides. Find the angles of the rhombus.
14. Find the perimeter of a rhombus whose diagonals are 6 cm and 8 cm.
15. Lengths of two sides of a parallelogram are in the ratio 2:3. Find the sides of the parallelogram if its perimeter = 120 cm.
16. Find the measure of an exterior angle of a regular
 i) Hexagon ii) Octagon iii) Decagon
17. Find the sum of the interior angles of a
 i) Heptagon ii) Nonagon iii) Pentagon
18. Each interior angle of a regular polygon is 140° .
 Find the number of sides of the polygon.
19. The measure of an exterior angle of a regular polygon is 72° . What is the name of the polygon?
20. Find the measure of an interior angle of a regular hexagon.
21. The ratio of an interior angle to the exterior angle of a regular polygon is 5:1. Find the number of sides.
22. The sum of the interior angles of a polygon is 540° . What is the name of the polygon?
23. How many diagonals can we draw in a
 i) pentagon
 ii) Hexagon iii) Triangle iv) Quadrilateral.

