

Class Notes	
Class: VIII	Topic: WORKSHEET on CH- 3- Understanding Quadrilaterals CH -5 – Squares and square Roots
Subject: Mathematics	

**Q1. Choose the correct option**

(i) Which is the greatest three-digit perfect square?

- (a) 999      (b) 961      (c) 962      (d) 970

(ii) Which is the smallest 4-digit perfect square?

- (a) 1024      (b) 1025      (c) 1000      (d) 1016

(iii) What will be the number of digits in the square root of 25600?

- (a) 3      (b) 2      (c) 5      (d) 4

(iv) What is the length of the side of a square whose area is 441 cm<sup>2</sup>?

- (a) 21      (b) 22      (c) 20      (d) 12

(v) Which of the following number would have digit 6 at units place?

- (a) 19<sup>2</sup>      (b) 24<sup>2</sup>      (c) 25<sup>2</sup>      (d) 13<sup>2</sup>

(vi) The square of which of the following would be odd number?

- (a) 431      (b) 272      (c) 1234      (d) 7928

(vii) What will be the “one’s digit” in the square of 1234?

- (a) 1      (b) 2      (c) 6      (d) 8

(viii) What could be the possible ‘one’s digit’ of the square root of 576?

- (a) 1      (b) 2      (c) 3      (d) 4

(ix) Polygons that have any portions of their diagonals in their exteriors are called:

- (a) Squares      (b) Triangles      (c) Convex      (d) Concave

(x) All the angles of a regular polygon are of .....

- (a) 90°      (b) 60°      (c) equal measure      (d) equal length

(xi) Each exterior angle of a regular hexagon is of measure:

- (a) 120°      (b) 80°      (c) 100°      (d) 60°

(xii) The number of sides in a regular polygon is 15, then measure of each exterior angle is:

- (a) 24°      (b) 36°      (c) 20°      (d) 18°

(xiii) A parallelogram each of whose angles measures 90° is .....

- (a) rectangle      (b) rhombus      (c) kite      (d) trapezium

(xiv) A parallelogram each of whose diagonals bisect each other at right angles is .....

- (a) rectangle      (b) rhombus      (c) kite      (d) trapezium

(xv) Which of the following numbers is not a perfect square?

- (a) 1444      (b) 3136      (c) 961      (d) 2222

**Q2. Fill in the blanks.**

- (i) The digit at unit's place of square of 239 = .....
- (ii)  $29 \times 31 = \dots - 1$
- (iii) The number of non-perfect square numbers between the square of 100 and 101 is-----
- (iv)  $(151)^2 - (150)^2 = \dots$
- (v) A simple closed curve made up of only ..... is called a polygon.

**Q3. Say True or False**

- (i) The square of even number is always even.
- (ii) Square numbers can have odd number of zero at the end.
- (iii) All rhombuses are parallelograms.
- (iv) All squares are not parallelograms.
- (v) All kites are rhombuses.

Q4. Find the smallest number by which 192 must be multiplied to make the product perfect square.

Q5. Which least number should be subtracted from 629 so as to get a perfect square?

Q6. Find the smallest number by which 12348 must be divided to obtain a perfect square.

Q7. Which smallest number should be added to 80 so as to make it a perfect square?

Q8. Write a Pythagorean triplet whose smallest member is

- (i) 8
- (ii) 16

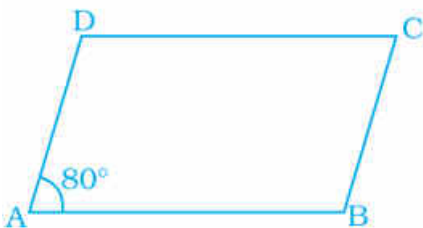
Q9. Which is the smallest square number that is divisible by each of the number 4, 9 and 10?

Q10. For the international yoga day, yoga teacher has to arrange 1024 students in such a way that each row has as many students as the number of rows. Find the number of students in each row.

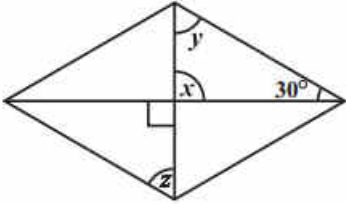
Q11. In a quadrilateral, the angles A, B, C and D are in the ratio 1 : 2 : 3 : 4. Find the measure of each angle of the quadrilateral.

Q12. The ratio of two adjacent sides of a parallelogram is 3 : 1 and its perimeter is 72 cm. What is the length of the adjacent sides?

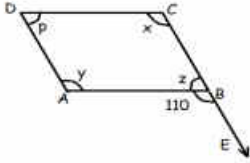
Q13. In parallelogram ABCD, find  $\angle B$ ,  $\angle C$  and  $\angle D$ .



Q14. Find the values of the unknowns x, y, z for following parallelogram.



**Q15.** In the given figure ABCD is a parallelogram. Find the value of  $x$ ,  $y$ ,  $z$ ,  $p$ .



## WORKSHEET (CH.6 &10)

### Class-VIII

#### Objective Questions

**Q1.** The one's digit of the cube of 53 is:

- A. 9
- B. 3
- C. 7
- D. 1

**Q2.** The volume of a cuboid with length, breadth and height as  $5x$ ,  $3x^2$  and  $7x^4$  respectively is:

- A.  $105x^7$
- B.  $105x^2$
- C.  $105x^4$
- D.  $105x$

**Q3.**  $100^0+20^0+5^0$  is equal to

- A. 125
- B. 25
- C.  $1/125$
- D. 3

**Q4.** Which of the following is false ?

- A. Cube of any odd number is odd.
- B. A perfect cube does not end with two zeroes
- C. The cube of a single digit number may be a single digit number
- D. There is no perfect cube which ends with

**Q5** The prime factorisation of 64 is:

- A.  $2 \times 2 \times 2$
- B.  $4 \times 4 \times 4$
- C.  $8 \times 8 \times 8$
- D. None of the above

**Q6.** Which of the following is correct?

- A. Cube of a negative number is always positive.
- B. Cube of a negative number is always negative.
- C. Cube of a negative number may be positive or negative.

D. All of the above

**Q.7.** If a number is doubled then which of the following is a correct statement?

- A. Its cube is two times the cube of the given number.
- B. Its cube is three times the cube of the given number.
- C. Its cube is six times the cube of the given number.
- D. Its cube is eight times the cube of the given number.

**Q.8.** The volume of a cubical box is  $64 \text{ cm}^3$ . Which of the following is its side?

- A. 2 cm
- B. 4 cm
- C. 6 cm
- D. 8 cm.

**Subjective Questions:**

**Q9.** Is 343 or 243 a perfect cube?

**Q10.** Find the cube root of 8000.

**Q11** What is the number whose cube is 216?

**Q12.** Is the cube of 4913 an odd number? Why?

**Q13** What is the smallest number by which 288 must be multiplied so the product is a perfect cube?

**Q14.** If the surface area of a cube is  $486 \text{ cm}^2$ , find its volume.

**Q15.** You are told that 1,331 is a perfect cube. Can you guess without factorisation what is its cube root?

**Q16.** Parikshit makes a cuboid of plasticine of sides 5 cm, 2 cm, 5 cm. How many such cuboids will he need to form a cube? .

**Q17** Find the volume of a cubical box, if the cost of painting its outer surface is ₹1440 at the rate of ₹15 per sq, m,

**Q18** Find the volumes of cubes with side edges : (a) 1.2 cm (b) 2.4 cm (c) 3.6 cm

What is relationship between the volumes of (a) and (b), and (a) and (c)? Note your findings. What conclusion can you draw?