ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT :Algebra and Geometry

Marks:15

Worksheet 18 answer key

QUADRILATERAL

Date:15.3.21

Answer all the following questions(1×15=15)

1. Three angles of a quadrilateral are 80^0,95^0 and 112^0.Its fourth angle is
   a) 78^0
   b) 73^0
   c) 85^0
   d) 100^0

   Answer:b
   Explanation:80+95+112+x=360, x=360-287=73°

2. The angles of a quadrilateral are in the ratio 3:4:5:6.The smallest angle is
   a) 45^0
   b) 60^0
   c) 36^0
   d) 48^0

   Answer:b
   Explanation:3x+4x+5x+6x=360, x=20, (3×20) =60°

3. In quadrilateral ABCD, angle A=120° and the rest of the angles are all equal, then angle B is
   a) 80°
   b) 60°
   c) 45°
   d) None of these

   Answer:a
   Explanation:120+x+x+x=360, x=240÷3=80°

4. Number of pairs of opposite sides of a quadrilateral is
   a) 1
   b) 4
   c) 2
   d) none of these

   Answer:c
   Explanation:AB, CD and AD, BC

5. A quadrilateral with equal sides and equal angles is a
   a) rectangle
   b) square
   c) kite
   d) none of these

   Answer:b
   Explanation:Square has all sides equal and each angle is 90°

6. In quadrilateral ABCD, if AO and BO are the bisectors of angle A and angle B respectively, angle C=70^0 and angle D=30^0.Then angle AOB=?
   a) 40^0
   b) 50^0
   c) 80^0
   d) 100^0

   Answer:b
   Explanation: angle A + angle B=360-(30+70) =260,(angle A + angle B)/2 =130,
        Angle AOB=180-130=50°

7. If the sides of a quadrilateral are produced in order, the sum of four exterior angles so formed is
   a)360^0
   b)180^0
   c) 90^0
   d)270^0

   Answer:a
   Explanation:By property

8. A quadrilateral is a figure made of four line segments no three of which are
   a) parallel
   b) coincident
   c) collinear
   d) none of these

   Answer:c
   Explanation:If three points lie on a straight line, then they are collinear

9. In a quadrilateral PQRS, PR and QS are known as its
   a) sides
   b) angles
   c) altitudes
   d) diagonals

   Answer:d
   Explanation:By definition

10. The sum of the angles of a quadrilateral is equal to
    a) 4 right angles
    b) 2 right angles

c) 6 right angles

d) none of these

Answer:a

Explanation:2 triangles are formed by a diagonal.So sum of angles of 2 triangles=180+180=360°=4×90

11. A diagonal divides a quadrilateral into how many triangles?
   a) 3
   b) 2
   c) 1
   d) 0

   Answer:2

   Explanation:Join vertices A and C

12. How many pairs of adjacent angles does a quadrilateral have?
   a) 2
   b) 1
   c) 6
   d) 4

   Answer:d

   Explanation:angles A, B; angles B, C ; angles C, D ;angles D, A

13. The fourth angle of the quadrilateral that has three acute angles is
   a) acute
   b) right
   c) obtuse
   d) straight

   Answer:c

   Explanation:let the three acute angles be 89^0 each.fourth angle=360-267=93° which is obtuse

14. If the angles of a quadrilateral are x°, (2x+13) °, (3x+10) °, (x-6) °, find x
   a) 49°
   b) 14°
   c) 7°
   d) none of these

   Answer:a

   Explanation: x+2x+13+3x+10+x-6=360, x=343/7 =49°

15. If the sum of three exterior angles of a quadrilateral is 270°, then the fourth exterior angle is
   a) 120°
   b) 90°
   c) 360°
   d) 75°

   Answer:b

   Explanation:360-270=90°

Indranil Ghosh