**Quadrilaterals – Parallelograms**

The prefix QUAD- means \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

A quadrilateral is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ polygon.

Naming a quadrilateral: Pick \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then name them off in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ order.

Ex:



**Consecutive: one \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the other.**

Diagonals

Consecutive sides:

Consecutive vertices:







**Interior Angles**

The angles **in** a quadrilateral add up to ­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Ex:** *Find x.*

**



Organizer Review:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | Parallelogram | Rectangle | Square | Rhombus |
| Opposite Sides // |  |  |  |  |
| Opposite Sides $≅$ |  |  |  |  |
| All Sides$≅$ |  |  |  |  |
| All Angles$≅$ |  |  |  |  |
| Opposite Angles$≅$ |  |  |  |  |
| Consecutive Angles Supplementary |  |  |  |  |
| Diagonals Bisect Each Other |  |  |  |  |
| Diagonal are$≅$ |  |  |  |  |
| Diagonals are Angle Bisectors |  |  |  |  |
| Diagonals are Perpendicular |  |  |  |  |

Properties of Parallelograms

Ex2: List the quadrilaterals for which the statements are true.

a) The diagonals are congruent b) The diagonals bisect the angles c) The diagonals are perpendicular

Ex2 List the quadrilaterals for which the statements are true:

a) Both pairs of opposite sides are parallel. b) Both pairs of opposite sides are congruent.

c) All angles are congruent. d) All sides are congruent.

Solving Opposite Sides and Angles in a Parallelogram: SIDES AND ANGLES

EX1: Ex2:

105o

2x – 5 o

x + 20

70





Ex 3: Ex4:

Solving Opposite Sides and Angles in a Parallelogram: DIAGONALS



Ex5: Ex6:

