Quadrilaterals In-Class Review

Sample Questions:

1) In the diagram below of parallelogram *ABCD* with diagonals *AC* and *BD*, the m < 1 = 37 and the m < DCB = 120.



2) The diagram below shows isosceles trapezoid ABCD with $AB \parallel DC$ and $AD \cong BC$. If AD = 4x and BC = 3x + 5, what is the value of x? What is the length of BC?



3) In rectangle *ABCD*, the length of diagonal *AC* is represented by 6b - 2 and the length of diagonal *BD* is represented by 4b + 2. Find b and the length of *AC*.

4) In rectangle *ABCD*, the diagonals intersect at *E*. The length of *AE* is represented as 3b + 1 and the length of *DE* is represented as 4(2b - 6). Find the value of *b*, *AC*, and *BD*.

5) In rhombus *ABCD*, the length, in inches of *AB* is 3x + 2 and *BC* is x + 12. Find the number of inches in length of *DC*.

6) In the following diagram of isosceles trapezoid *ABCD*, m < A = 46. Find the measure of all of the remaining angles.



7) Given parallelogram *ABCD*, diagonals *AC* and *BD* intersect at point *E*. If the length of *AE* is represented as 11x - 3 and the length of *BE* is represented as 12 - 4x, then what is the measure of *AC*?

8) In parallelogram *ABCD*, the measure of < A exceeds the measure of < B by 28 degrees. Find the degree measure of < A and < B.

9) In square *RSTU*, the m < R = 3x + 33. What is the value of x?

10) One angle of a parallelogram is 12 less than 5 times the measure of the adjacent angle. What are the measures of these angles?

11) One side of a kite is 4 feet more than three times another side. If the perimeter of the kite is 80 feet what are the lengths of the four sides?

12) Given ABCD is a parallelogram. If AB=5x+9, BC=2x+5, CD=2y+3, and AD=y-4, find the value of x and y.

13) In rhombus *EFGH*, m < E = 3x - 10 and m < F = 4(x - 35). Find m < G.

14) Given rectangle *ABCD*, AB = x - 3, BC = 24, and AD = 2x + 12. Find the perimeter of this rectangle.

15) Given parallelogram *FROG*, m < G = 2x + 10 and m < R = 8x - 30. Find the value of x to the nearest hundredth. Find the measure of all of the angles.

16) Is the figure below a parallelogram? Explain. If so, find the measure of all of the angles.



17) Given rhombus ABCD below, find the value of x and y. 18) In the parallelogram below find the values of x,y, and z.



19) Given the trapezoids below, find the values for each of the missing angles.

