**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Review of Trapezoids & Parallelograms**

1.



2.



3. In the diagram below, *LATE* is an isosceles trapezoid with , , , and . Altitudes  and  are drawn. What is the length of ?



 4. The accompanying diagram shows ramp ** leading to level platform **, forming an angle of 45° with level ground. If platform ** measures 2 feet and is 6 feet above the ground, find the exact length of ramp **



1. Quadrilateral BATH has vertices B(1,-4), A(10,2), T(8,5), and H(2,1).

Use coordinate geometry to prove that quadrilateral BATH is a trapezoid but *not an isosceles trapezoid*.

****



6.

7. In the accompanying diagram of parallelogram *ABCD*,  and . Find the number of degrees in . Explain your reasoning.



1. In the diagram below of parallelogram *ABCD* with diagonals  and ,  and . What is the measure of ? Explain your reasoning.

 

1. In the diagram below of parallelogram *STUV*, , , and . What is the length of ? Explain your reasoning.



1. As shown in the diagram below, the diagonals of parallelogram *QRST* intersect at *E*. If , , and , determine *TE* algebraically. Explain you reasoning.

 

1. The diagram below shows parallelogram *LMNO* with diagonal , , and  Explain why  is 40 degrees.



12.. In parallelogram *QRST* shown below, diagonal  is drawn, *U* and *V* are points on  and , respectively, and  intersects  at *W*. If , , and , what is ?

 

1. In the accompanying diagram of parallelogram *ABCD*, diagonals  and  intersect at *E*, , and . What is the length of AC?



14. The measures of two consecutive angles of a parallelogram are in the ratio . What is the measure of an obtuse angle of the parallelogram? Explain your reasoning.

15. In the accompanying diagram of parallelogram *ABCD*, diagonals  and  intersect at *E*, , and What is the value of *x*?



16.. Use the accompanying diagram and coordinate geometry to prove the quadrilateral is a parallelogram.



17.

17.****

18.



1. Given: Parallelogram ABCD, 

 Prove:



20.

**7.**