Geometry

8.5 Use Properties of Trapezoids and Kites

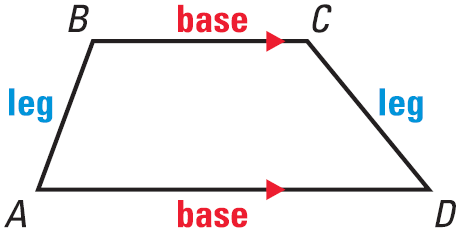
# Trapezoid

base

parallel

one

\_\_\_\_\_\_

Quadrilateral with exactly \_\_\_\_\_ pair of \_\_\_\_\_\_\_\_\_\_ sides

leg

leg

\_\_\_\_\_\_

\_\_\_\_\_\_

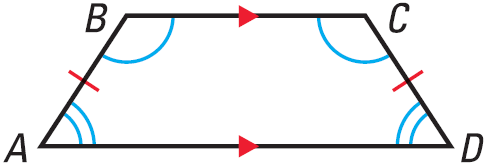
isosceles

congruent

If the legs are \_\_\_\_\_\_\_\_\_\_\_\_\_\_, then the trapezoid is \_\_\_\_\_\_\_\_\_\_\_\_

base

\_\_\_\_\_\_



congruent

angles

isosceles

If \_\_\_\_\_\_\_\_\_\_\_ trapezoid, then each pair of base \_\_\_\_\_\_\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

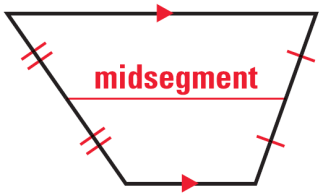
congruent

diagonals

isosceles

If \_\_\_\_\_\_\_\_\_\_\_ trapezoid, then \_\_\_\_\_\_\_\_\_\_\_ are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The converses are also true



## Midsegment of a Trapezoid

leg

midpoints

Segment connecting the \_\_\_\_\_\_\_\_\_\_\_\_ of each \_\_\_\_\_\_\_

## Midsegment Theorem for Trapezoids

lengths

average

length

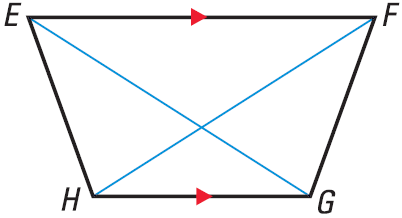
bases

parallel

The midsegment of a trapezoid is \_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_ and its \_\_\_\_\_\_\_\_\_ is the \_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_.

bases

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If EG = FH, is trapezoid EFGH isosceles?

Yes, If the diagonals are , then the trapezoid is isosceles

If mHEF = 70° and mFGH = 110°, is trapezoid EFGH isosceles?

Since the base angles are , the trapezoid is isosceles

In trapezoid JKLM, J and M are right angles, and JK = 9 cm. The length of the midsegment of trapezoid JKLM is 12 cm. Find ML.

# Kites

consecutive

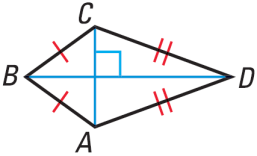
two

Quadrilateral with \_\_\_\_\_\_\_ pairs of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ congruent sides

perpendicular

diagonals

If kite, then the \_\_\_\_\_\_\_\_\_\_\_\_\_ are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

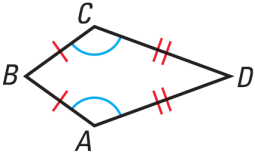


congruent

angles

one

If kite, then exactly \_\_\_\_\_\_\_\_ pair of opposite \_\_\_\_\_\_\_\_\_\_\_\_ are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



In a kite, the measures of the angles are 3x°, 75°, 90°, and 120°. Find the value of x.

Assignment: 546 #4-32 even, 38, 44-48 all = 21