Learning Targets:

      7g.   Understanding of how to find side and angle measures for trapezoids and kites.

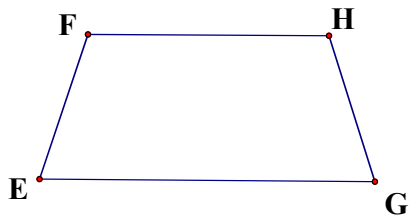   7h.   Understanding of how to write and solve equations for angles and sides of trapezoids and kites.

Trapezoid

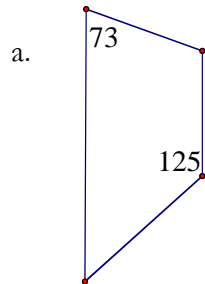A quadrilateral with exactly one pair of _____
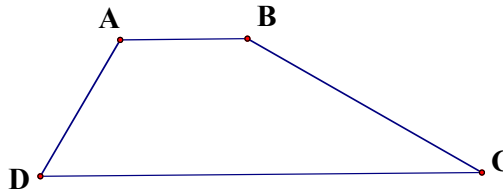
Isosceles Trapezoid

A trapezoid with _____ legs

Rules

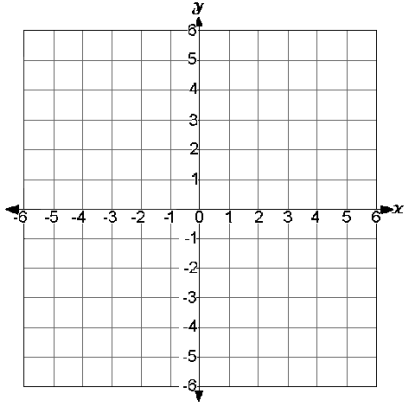1. Base angles are _____

2. Diagonals are _____

Examples: Find the missing angles

a.

73

125

b.

5   5

78

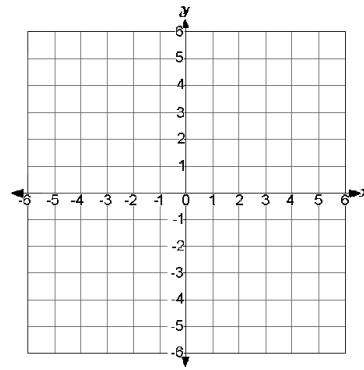<u>Examples:</u> Determine if the trapezoid is isosceles.
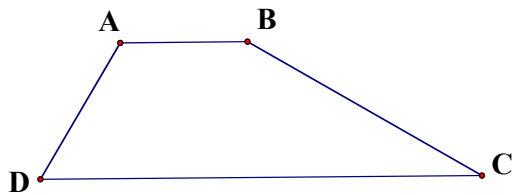
a. O(0, 0) R(0, 3) S(2, 4) T(4, 2)

b. A(-2, -1) B(0, 3) C(3, 2) D(4, -3)

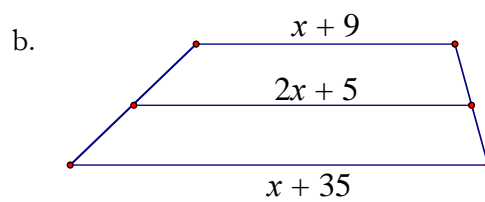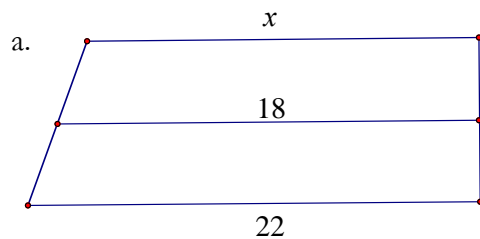## Midsegment of a Trapezoid

A midsegment of a trapezoid is made by connecting the _____ of the legs.

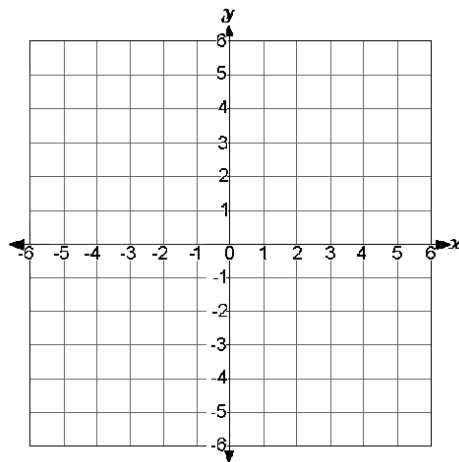The length of the midsegment is _____ the _____ of the bases.

<u>Examples:</u> Solve for x.

a.

b.
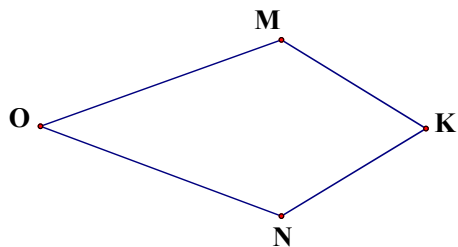
<u>Examples</u>: Find the length of the midsegment.

     a.   P(-3, -1) Q(-1, 3) R(5, -3) S(-1, -3)

Kites

A quadrilateral with 2 pairs of consecutive _____ are _____

<u>Rules</u>

1. Diagonals are _____

2. 1 pair of opposite angles are _____

<u>Examples</u>: Find the missing angles

     a.

121

67