

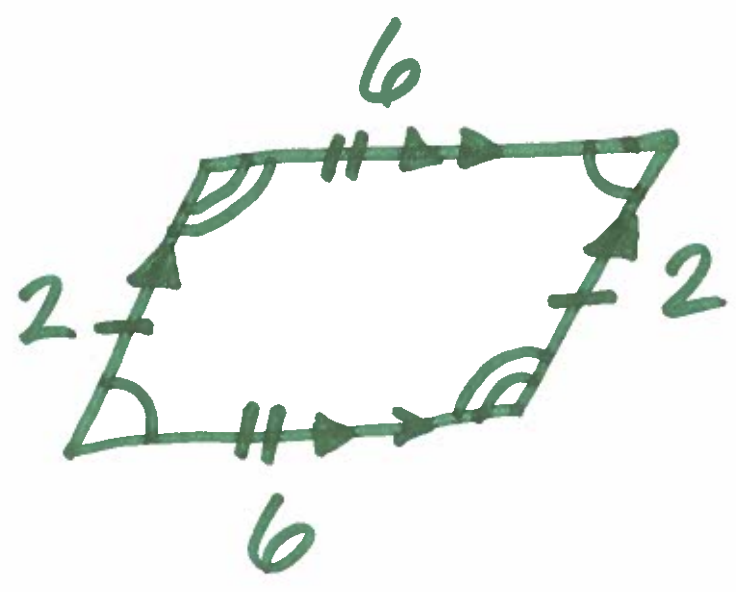
1/6/2020

# 6.1 Classify Quadrilaterals (4 sides)

parallelogram:  
both pairs of  
opposite sides  
are  $(\cong)$  and  $(\parallel)$

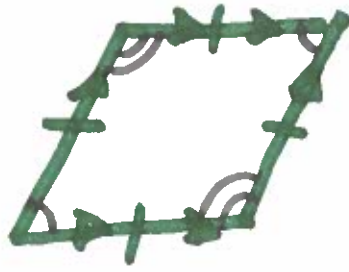
$\equiv$   
↑  
tick  
marks

$\parallel$   
↑  
arrow



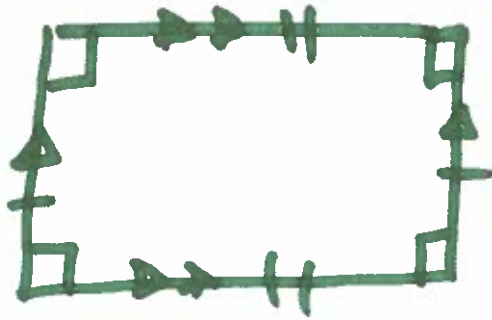
# Rhombus:

parallelogram  
w/ 4 ( $\cong$ ) sides



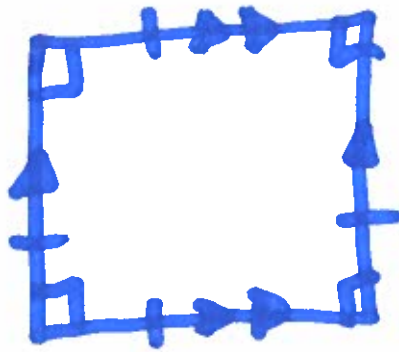
# Rectangle:

parallelogram  
w/ 4 right  $\angle$ 's



# Square:

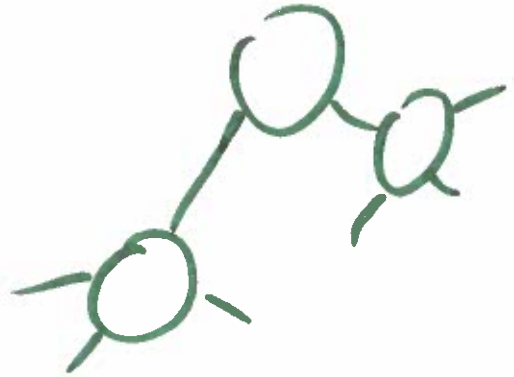
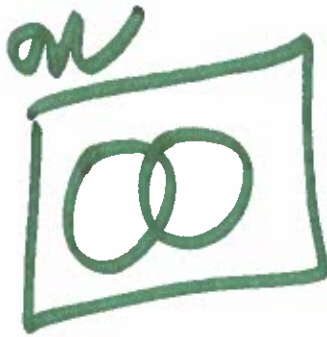
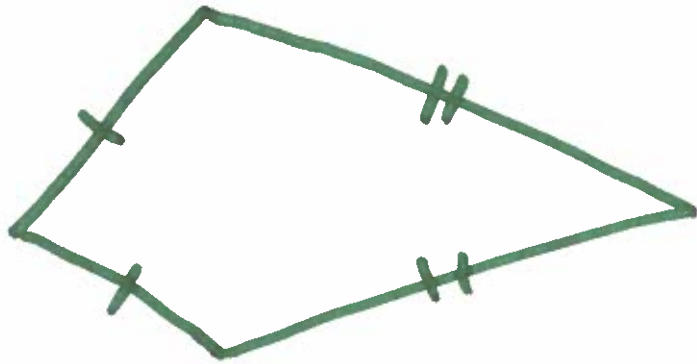
parallelogram  
w/ 4 ( $\cong$ ) sides  
! 4 right  $\angle$ 's



Kite:

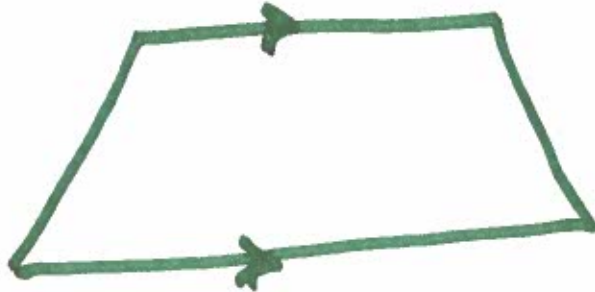
quadrilateral

w/ 2 pairs  
≅ sides

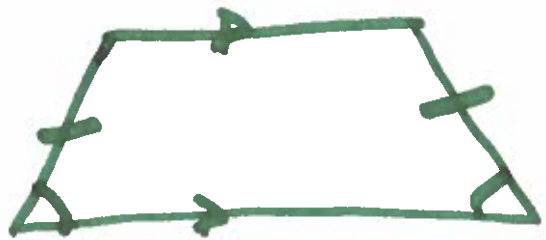


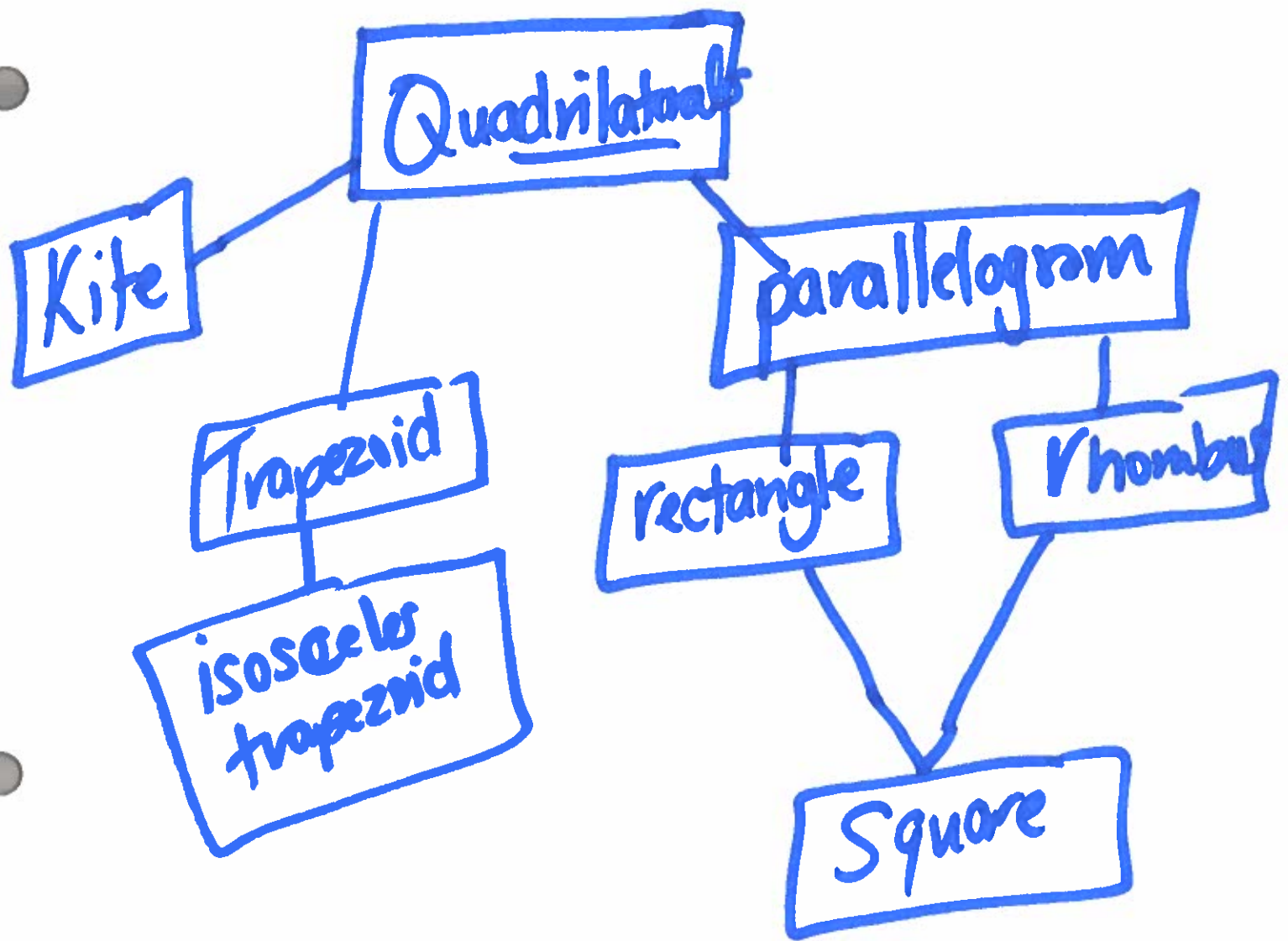
Trapezoid:

1 pair  
parallel sides



Isosceles  
Trapezoid: 1  
pair (≅)  
sides

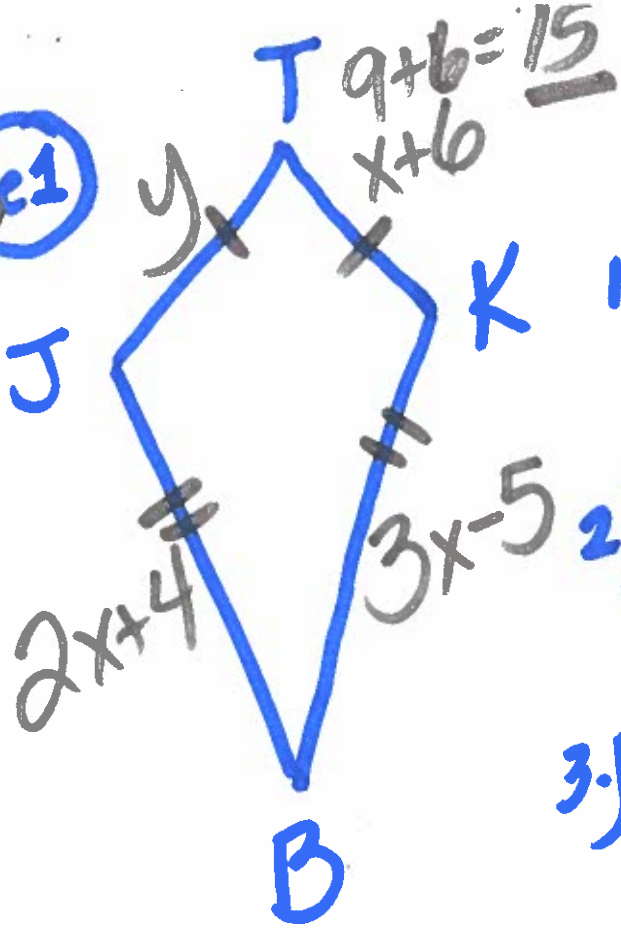




Square → rectangle yes

rectangle → square NO

ie1



1.) Shape: Kite

2.) Find  $x = \underline{9}$

3.) Find  $y = \underline{15}$

$$\begin{array}{r}
 2x+4 = 3x-5 \\
 \underline{-3x} \quad \underline{-3x} \\
 -1x+4 = -5 \\
 \underline{-4} \quad \underline{-4} \\
 -1x = -9 \\
 \underline{-1} \quad \underline{-1} \\
 x = 9
 \end{array}$$

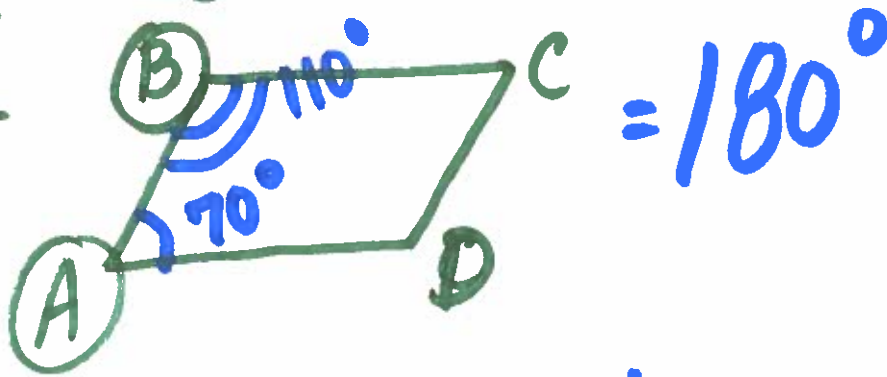
pgs. 290-291  
 # 1-25  
 odds

1/8/2020

# 6.2 Properties of Parallelograms

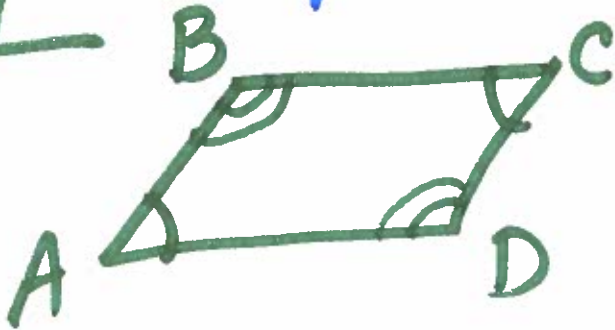
Consecutive angles:

beside each other



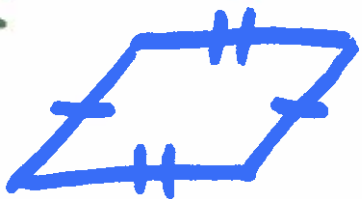
Opposite angles:

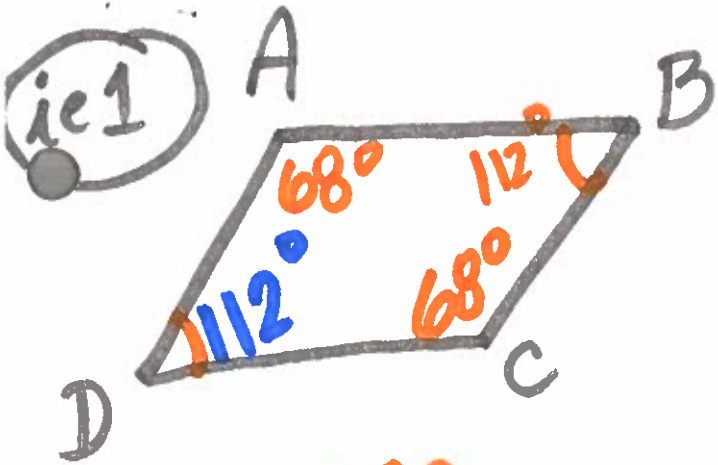
diagonal angles that are  $(\cong)$



Opposite sides:

sides across from each other that are  $(\cong)$

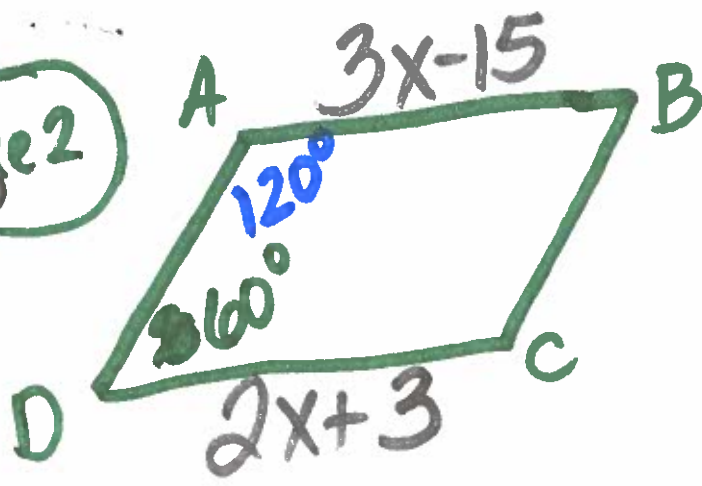




$$\begin{array}{r} 180 \\ - 112 \\ \hline 68^\circ \end{array}$$

Find:  $\angle A = \underline{68^\circ}$   
 $\angle B = \underline{112^\circ}$   
 $\angle C = \underline{68^\circ}$

je2



$$\begin{array}{r} 3x-15 = 2x+3 \\ +15 \quad \quad +15 \\ \hline 3x = 2x + 18 \\ -2x \quad -2x \\ \hline x = 18 \end{array}$$

$$\underline{x = 18}$$

$$\underline{\overline{AB} = 39}$$

$$\underline{\overline{DC} = 39}$$

$$m\angle B = \underline{60^\circ}$$

$$\angle A = \underline{120^\circ}$$

$$\angle C = \underline{120^\circ}$$

pgs. 297-298  
 #1-33 odds



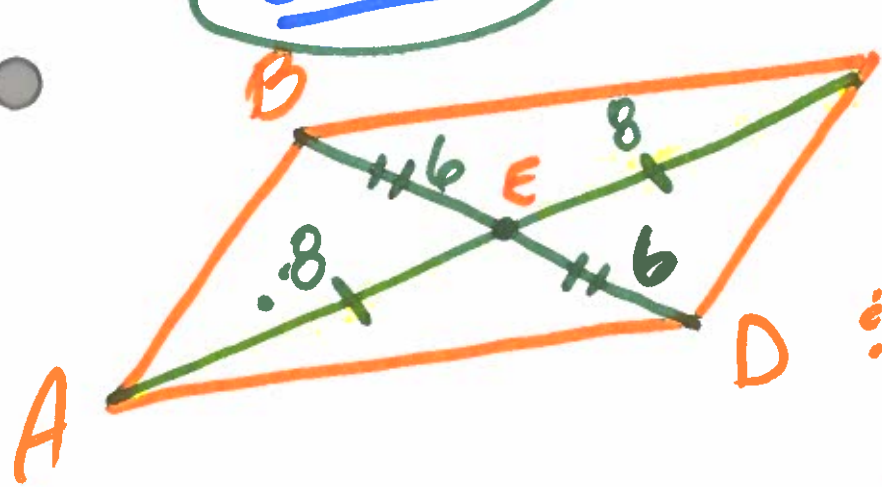
1/13/2020

# 6.3 Proving the

# Quadrilateral is a

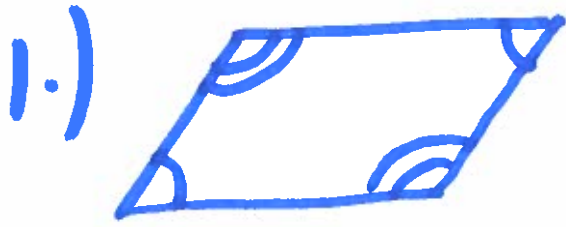
# Parallelogram

Converse of diagonals: it is a parallelogram if diagonals bisect each other.

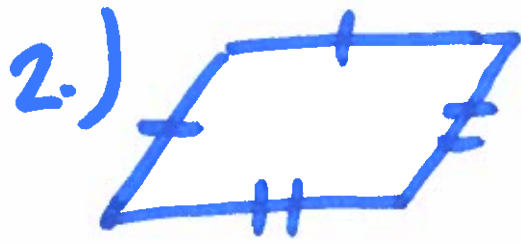


$$\begin{aligned} & \overline{AE} \cong \overline{EC} \\ & \therefore \overline{BE} \cong \overline{ED} \\ & \underline{\underline{\text{parallelogram}}} \end{aligned}$$

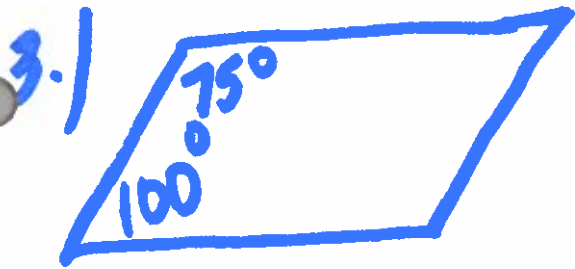
Is the quad. a parallelogram?



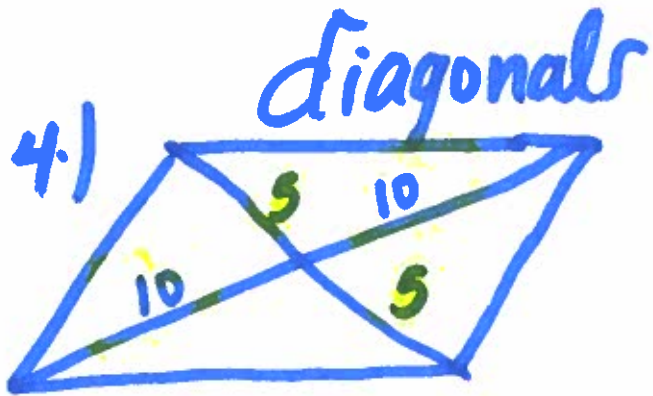
= yes



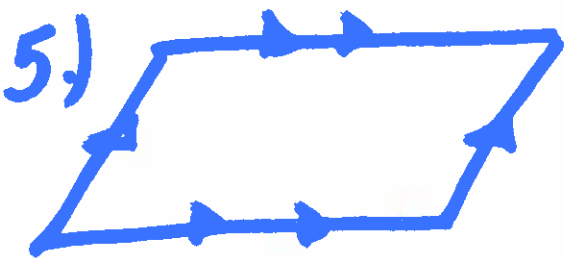
= no



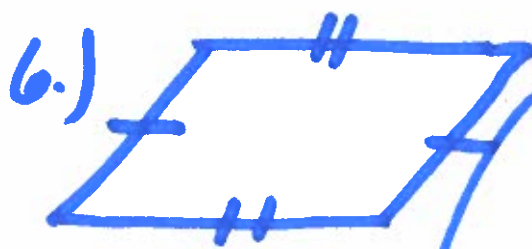
= No (not 180)



= yes



= ya



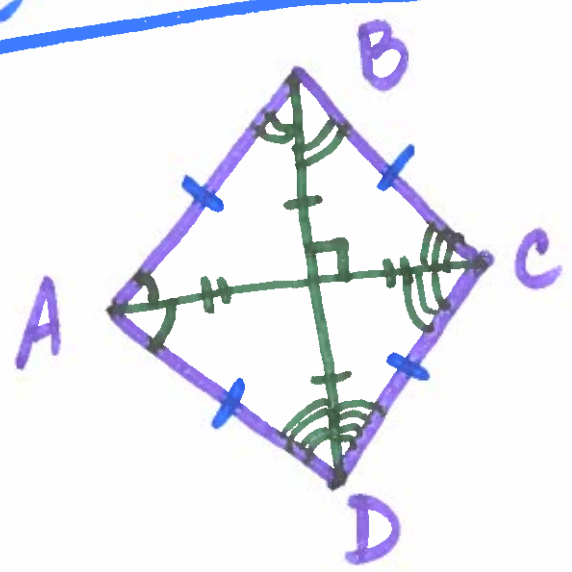
= yes

CWIK:  
p95 307  
#1-15  
odds  
27.29

1/14/2020

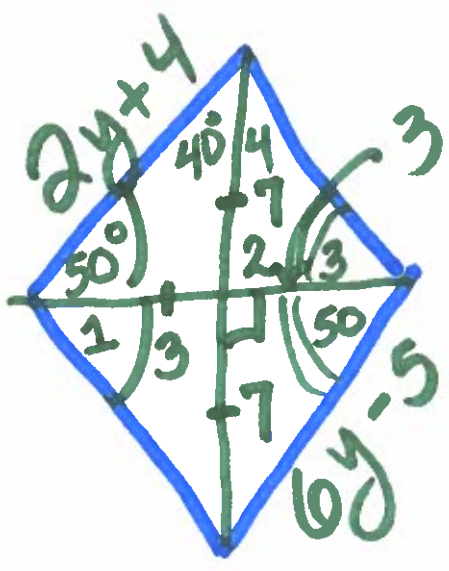
# 6.4 Special Parallelograms

## Rhombus: (diamond)



2 diagonals  
 → bisect each other  
 → make right  $\angle$

ie 1



$$\angle 1 = \frac{50^\circ}{90^\circ}$$

$$\angle 2 = \frac{90^\circ}{50^\circ}$$

$$\angle 3 = \frac{50^\circ}{40^\circ}$$

$$\angle 4 = \frac{40^\circ}{50^\circ}$$

$$\begin{array}{r} 2y + 4 = 6y - 5 \\ -6y \quad -6y \\ \hline -4y + 4 = -5 \\ -4 \quad -4 \\ \hline y = \frac{9}{4} \end{array}$$

$$\frac{-4y}{-4} = \frac{-9}{-4}$$

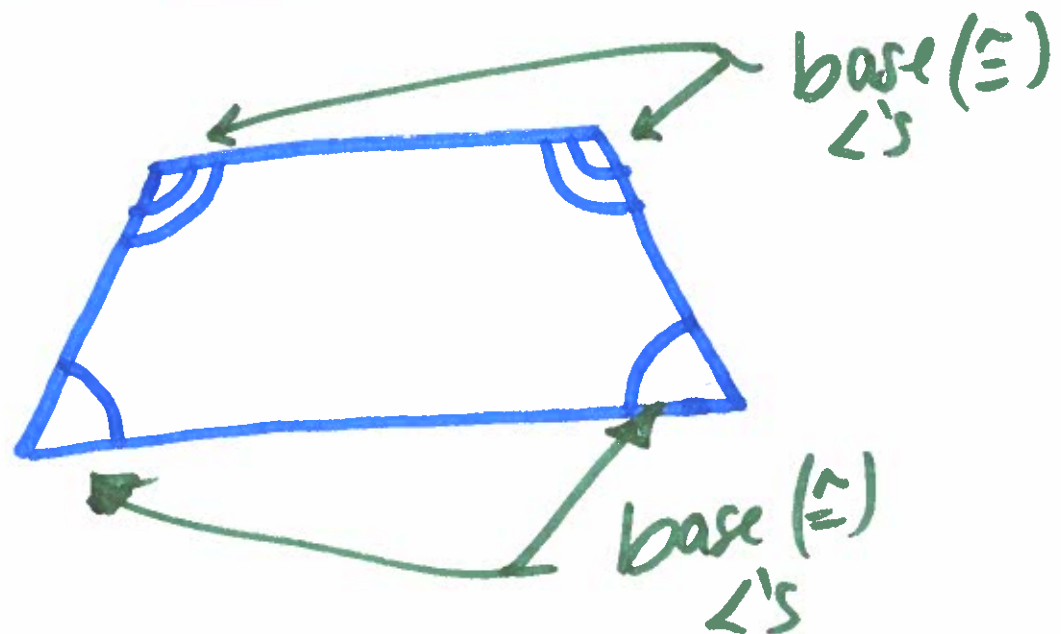
$y = \frac{9}{4}$

CWK: pgs. 315-317  
 # 1-15  
 odds

1/16/2020

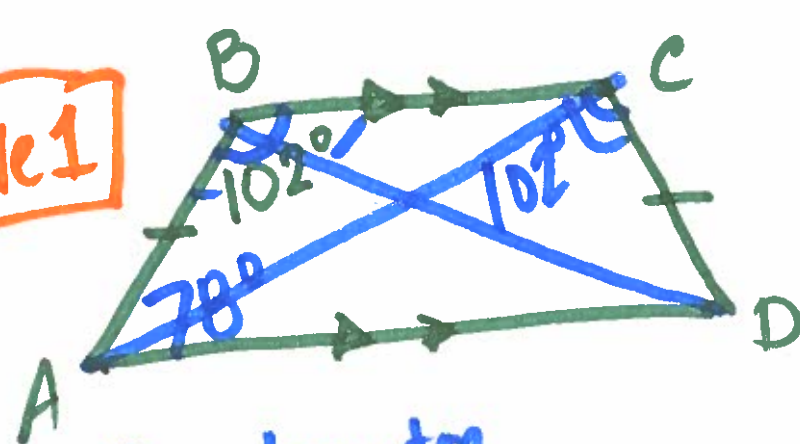
# 6.5 Trapezoids & Kites

Base Angles



## P1 Finding Angle Measures in Trapezoids

ie 1



Supplementary

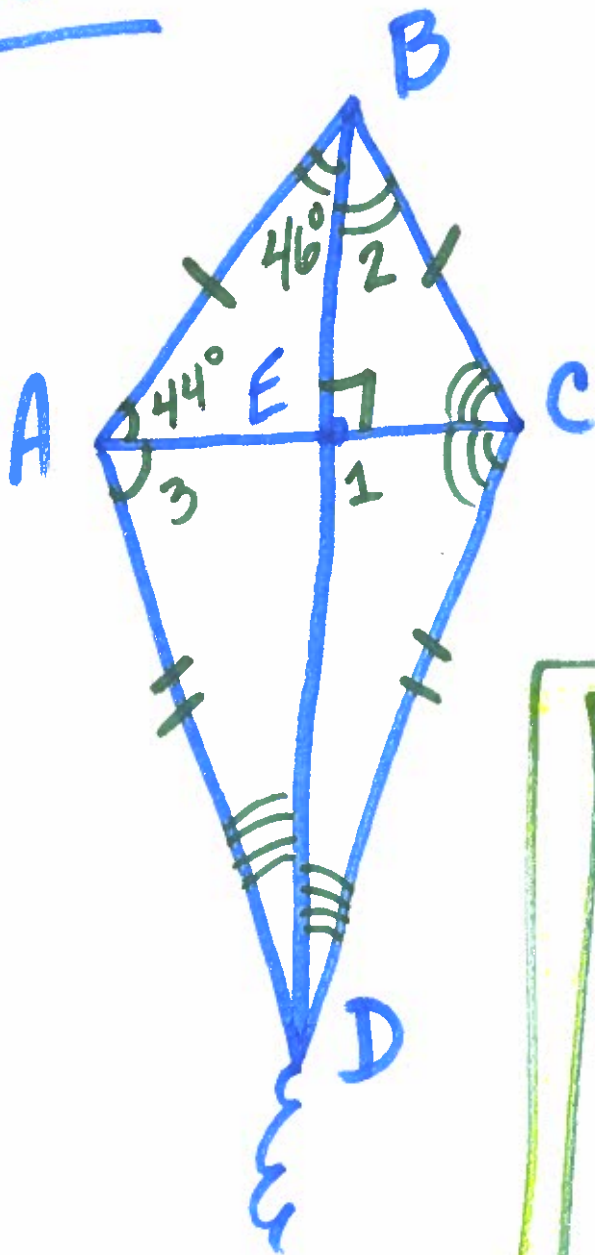
$$\angle A = \underline{78^\circ}$$

$$\angle C = \underline{102^\circ}$$

$$\angle D = \underline{78^\circ}$$

$$\overline{BD} \cong \overline{AC}$$

# Kite



$$m\angle 1 = 90^\circ$$

$$m\angle 2 = 46^\circ$$

$$m\angle 3 = 44^\circ$$

CrWK:

pgs. 322-323

# 1-25 odds

Skip 7, 17, 19