Practice 6-5

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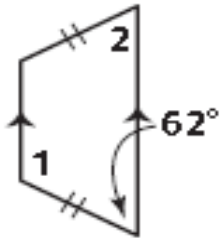
Trapezoids & Kites

Find the measures of the numbered angles in each isosceles trapezoid.

1.

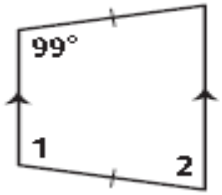


m∠1 = 180 - 62

m∠1 = 118°

m∠2 = 62°

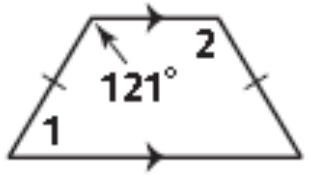
2.



m∠1 = 99°

m∠2 = 81°

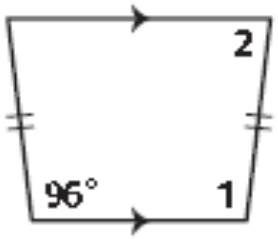
3.



m∠1 = 59°

m∠2 = 121°

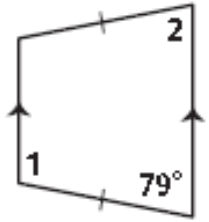
4.



m∠1 = 96°

m∠2 = 84°

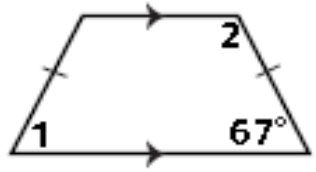
5.



m∠1 = 101°

m∠2 = 79°

6.



m∠1 = 67°

m∠2 = 113°

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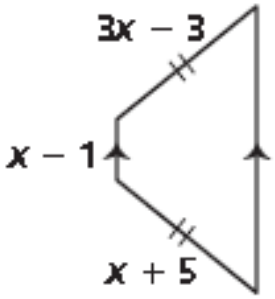
Trapezoids & Kites

ALGEBRA Find the value(s) of the variable(s) in each isosceles trapezoid.

7.

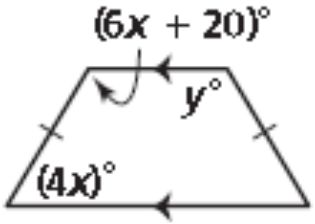


3x – 3 = x + 5

2x = 8

$x = 4$

8.



Solve for x :

6x + 20 + 4x = 180

10x + 20 = 180

10x = 160

$x = 16$

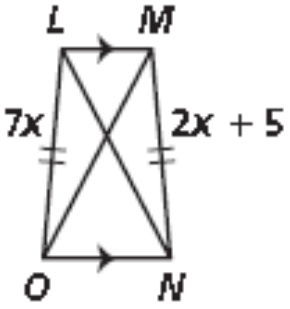
Solve for y :

y = 6x + 20

y = 6(16) + 20

$y = 116$

9.



7x = 2x + 5

5x = 5

$x = 1$

Practice 6-5

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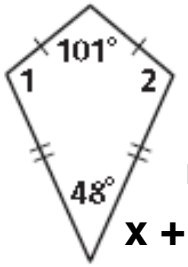
Trapezoids & Kites

Find the measures of the numbered angles in each kite.

10.



m∠1 = 105.5°

m∠2 = 105.5°

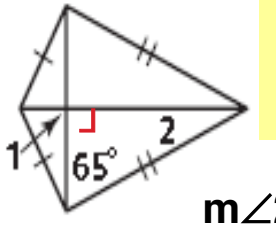
m∠1 = m∠2, Let x = m∠1

x + x + 101 + 48 = 360

2x = 211

x = 105.5°

11.



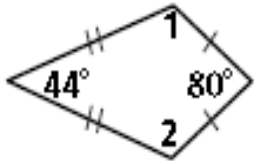
m∠1 = 90°

m∠2 = 25°

m∠2 = 90 − 65

m∠2 = 25°

12.



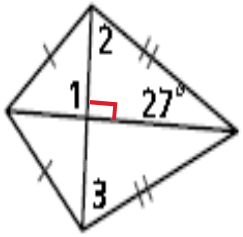
m∠1 = 118°

m∠2 = 118°

$m\angle 1 = \frac{360-(44+80)}{2}$

m∠1 = 118°

13.



m∠1 = 90°

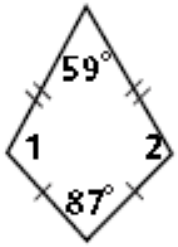
m∠2 = 63°

m∠3 = 63°

m∠2 = 90 - 27

m∠2 = 63°

14.



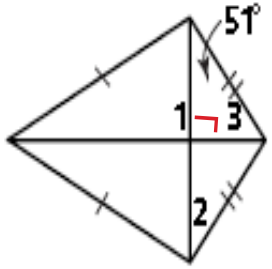
m∠1 = 107°

m∠2 = 107°

$m\angle 1 = \frac{360-(59+87)}{2}$

m∠1 = 107°

15.



m∠1 = 90°

m∠2 = 51°

m∠3 = 39°

m∠3 = 90 - 51

m∠3 = 39°

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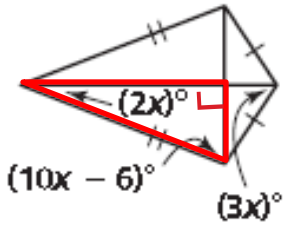
Trapezoids & Kites

ALGEBRA Find the value(s) of **the** variable(s) in each kite.

16.

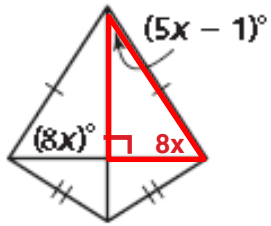


10x – 6 + 2x = 90

12x = 96

***x* = 8**

17.

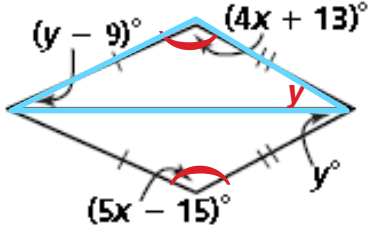


5x – 1 + 8x = 90

13x = 91

***x* = 7**

18.



4(28)+13 = 125°

Solve for *x* :

5x – 15 = 4x + 13

***x* = 28**

Solve for y :

y– 9 + y +125 =180

2y + 116 =180

2y = 64

***y* = 32**