

# 5.6 Practice

Find the length of the midsegment of each trapezoid.

1) 
  

$$\frac{11.4 + 4.2}{2} = 7.8$$

2) 
  

$$? = 9$$

Find the measurement of the angle indicated for each trapezoid.

3) 
  

$$115^\circ = m\angle U$$

4) 
  

$$m\angle Y = 85^\circ$$

Solve for x. Each figure is a trapezoid.

5)  $DB = 7$   
 $EC = 1 + x$

$$x + 1 = 7$$

$$x = 6$$

6)  $CE = 23$   
 $BD = 5x - 17$

$$23 = 5x - 17$$

$$40 = 5x$$

$$x = 8$$

7) 
  

$$70 + 108x + 2 = 180$$

$$108x + 72 = 180$$

$$108x = 108$$

$$x = 1$$

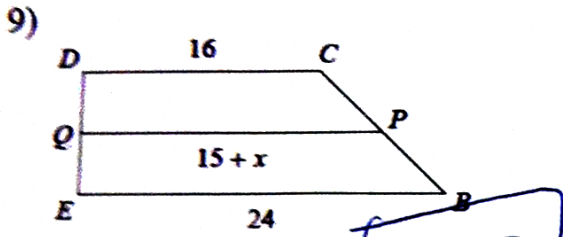
8) 
  

$$85 = 14x - 13$$

$$98 = 14x$$

$$x = 7$$

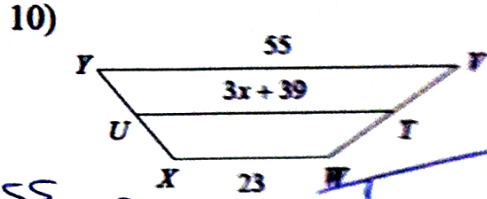
# [PACKET 5.6: KITES & TRAPEZOIDS]



$$\frac{16+24}{2} = 15+x$$

$$20 = 15+x$$

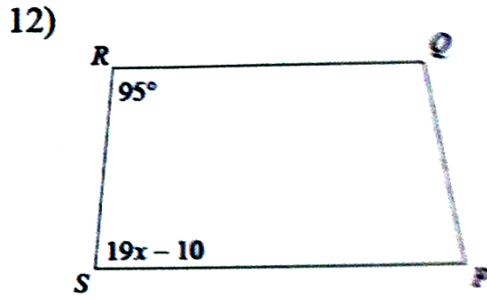
$x = 5$



$$\frac{23+55}{2} = 3x+39$$

$$39 = 3x+39$$

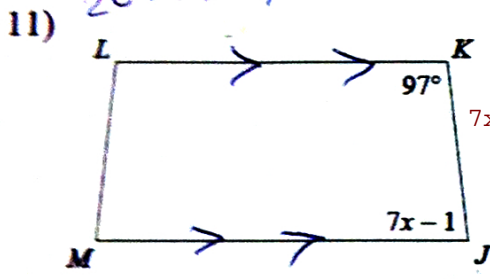
$x = 0$



$$19x - 10 + 95 = 180$$

$$19x + 85 = 180$$

$x = 5$



$$7x - 1 + 97 = 180$$

$$7x + 96 = 180$$

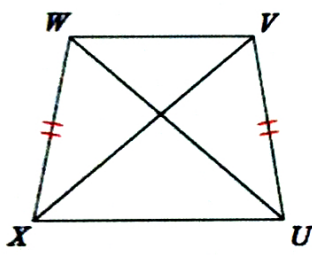
$$7x = 84$$

$$x = 12$$

~~$7x - 1 = 97$~~   
 ~~$7x = 98$~~   
 ~~$x = 14$~~

Find the length of the diagonal indicated for each trapezoid.

13)  $WU = 3x - 18$   
 $XV = 2x - 10$   
 Find  $WU$



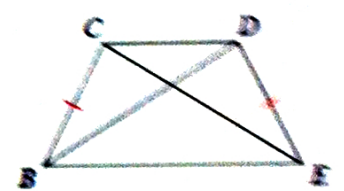
$$3x - 18 = 2x - 10$$

$x = 8$

$$WU = 3(8) - 18$$

$WU = 6$

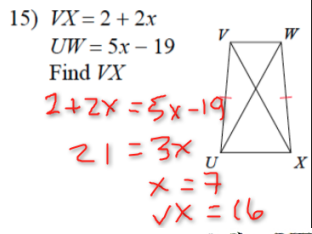
14)  $CE = x + 5$   
 $BD = 5x - 11$   
 Find  $CE$



$$x + 5 = 5x - 11$$

$16 = 4x$   
 $4 = x$

$CE = 9$



$$2 + 2x = 5x - 19$$

$$21 = 3x$$

$$x = 7$$

$$VX = 16$$

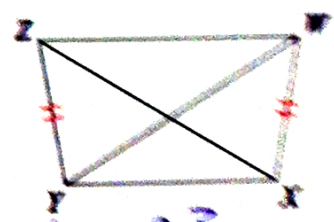
17. Solve for x:  
 $2x + x + 6 + 90 = 180$   
 $3x + 96 = 180$   
 $3x = 84$   
 $x = 28$

18. Solve for x and y:  
 $110 + y + y = 180$   
 $2y = 70$   
 $y = 35$   
 $x = 35$

19. Find the measures of the numbered angles of each kite.  
 $m \angle 1 = 90^\circ$ ,  $m \angle 2 = 90^\circ$   
 $m \angle 3 = 90^\circ$ ,  $m \angle 4 = 90^\circ$   
 $m \angle 5 = 46^\circ$ ,  $m \angle 6 = 34^\circ$   
 $m \angle 7 = 56^\circ$ ,  $m \angle 8 = 44^\circ$   
 $m \angle 9 = 56^\circ$ ,  $m \angle 10 = 44^\circ$

20. Find  $m \angle 1$  and  $m \angle 2$ :  
 $m \angle 1 = 112^\circ$ ,  $m \angle 2 = 112^\circ$

16)  $XZ = 3x + 23$   
 $WY = 4x + 23$   
 Find  $XZ$



$$3x + 23 = 4x + 23$$

$x = 0$   
 $XZ = 23$