2-16 even, 23-30 All

Name Key Class _____ Date _____

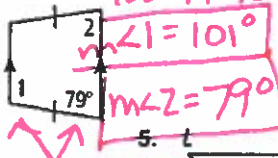
# 6-6 Practice

Form G

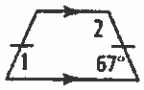
## Trapezoids and Kites

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

1. 

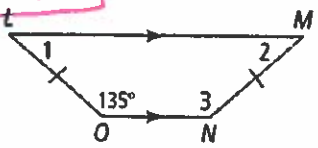

2. 

180 − 79 = 101
m∠1 = 101°
m∠2 = 79°

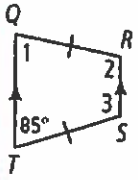
3. 


4. 

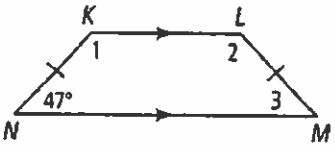
125°
125°
180
∠1 = 125
55°

5. 

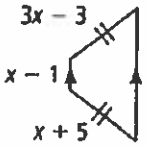
180

6. 

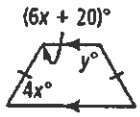
1 = 85
2 = 95
3 = 95

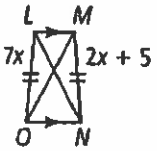
7. 


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

8. 

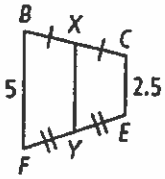
3x − 3 = x + 5
2x − 3 = 5
2x = 8
x = 4

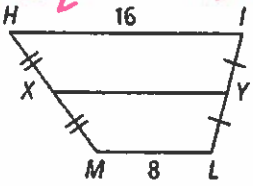
9. 


10. 

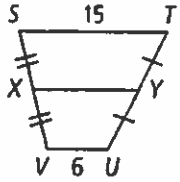
7x = 2x + 5
5x = 5
x = 1

**Find *XY* in each trapezoid.**

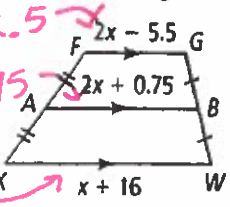
11. 


12. 

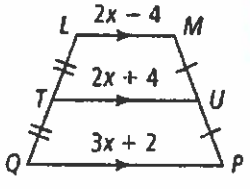
$\frac{8+16}{2} = \frac{24}{2} = 12$

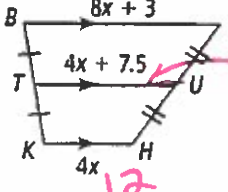
13. 


**Algebra Find the lengths of the segments with variable expressions.**

14. 

12.5
18.75
25
2(2x + 0.75) = 2x − 5.5 + x + 16
4x + 1.5 = 3x + 10.5
x = 9

15. 


16. 

27
19.5
12
2(4x + 7.5) = 8x + 3 + 4x
8x + 15 = 12x + 3
15 = 4x + 3
12 = 4x
3 = x

Pearson Texas Geometry
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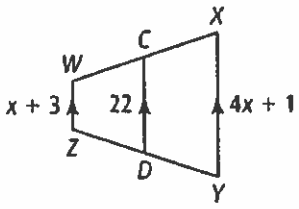
Name Key Class Date

# 6-6 Practice (continued) Form G

17. $\overline{CD}$ is the midsegment of trapezoid $WXYZ$.




a. What is the value of $x$?

b. What is $XY$?

c. What is $WZ$?

18. **Reasoning** The diagonals of a quadrilateral form two acute and two obtuse angles at their intersection. Is this quadrilateral a kite? Explain.

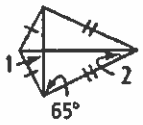
19. **Reasoning** The diagonals of a quadrilateral form right angles and its side lengths are 4, 4, 6, and 6. Could this quadrilateral be a kite? Explain.

23-30 All

**Find the measures of the numbered angles in each kite.**

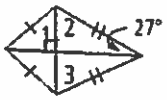
20.


21.




22.


23.



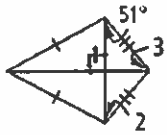

1=90
2=63
3=63

24.


214/2

1=107
2=107

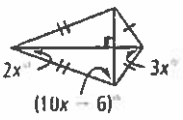
25.




3=39
2=51
1=90

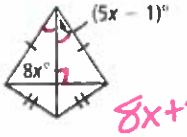
**Algebra Find the value(s) of the variable(s) in each kite.**

26.



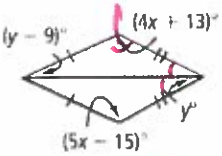

2x+10x-6=90
12x-6=90
12x=96
x=8

27.




8x+5x-1=90
13x-1=90
13x=91
x=7

28.



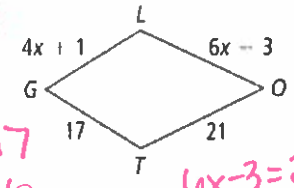

125

4x+13=5x-15
13=x-15
28=x


125+y-9+y=180
116+2y=180
2y=64
y=32

**For which value of $x$ is each figure a Kite?**

29.

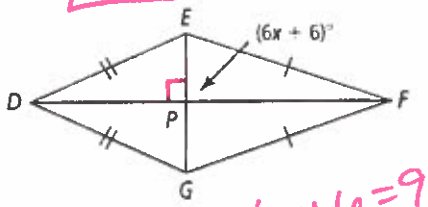



4x+1=17
4x=16
x=4

6x-3=21
6x=24
x=4

x=4

30.




6x+6=90
6x=84
x=14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