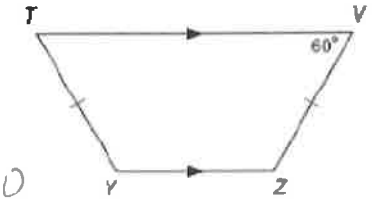
Name _____ Date _____

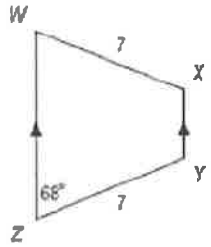
Find each measure.

1) $m\angle T$



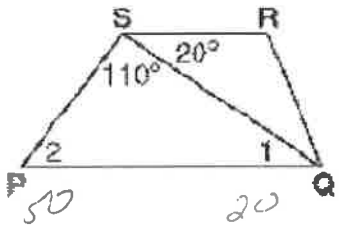
60

2) $m\angle Y$



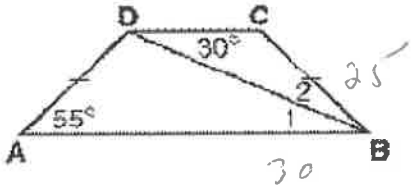
112

3) Trapezoid PQRS. Find the m∠1 and ∠2.



50 20

4) ABCD is an isosceles trapezoid. Find the m∠1 and ∠2.



30

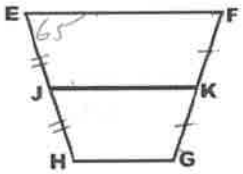
5) MATH is an isosceles trapezoid with $\overline{AT} \parallel \overline{MH}$. If $m\angle M = 3x-9$ and $m\angle H = x+3$ find x.

$x = 6$

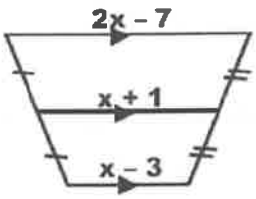
6) If EH=FG, and $m\angle E = 65$, then what is $m\angle G$ and $m\angle GKJ$?

$\angle G = 115$

$\angle GKJ = 65$



7) Find the value of x.

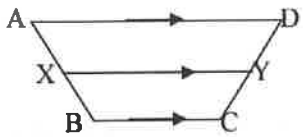


$x = 12$

Use the diagram of Isosceles trapezoid ABCD. $\overline{XY}$ is the midsegment. Explain your reasoning.

8) If AX=4, then CD= 8.

9) If $m\angle ABC = 110$, then $m\angle BAD =$ 70.



10) If $m\angle BAD = 65$, then $m\angle CDA =$ 65.

11) If $m\angle DCB = 105$, then $m\angle DAB =$ 75.

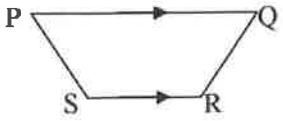
PQRS is an isosceles trapezoid.

12) Name the bases

$\overline{PQ}$ $\overline{SR}$

13) Name the legs

$\overline{PS}$ $\overline{QR}$



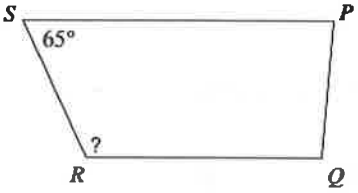
14) Name two pairs of congruent angles

$\angle P \cong \angle Q$ $\angle S \cong \angle R$

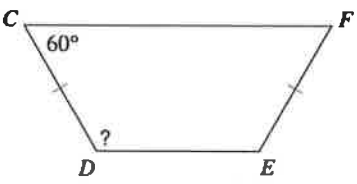
15) Name a pair of congruent segments

$\overline{PS} \cong \overline{QR}$

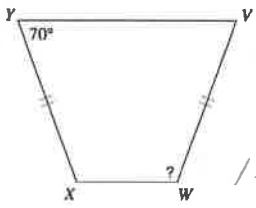
Find the indicated angle measurement. Explain your reasoning.

16) 

115

17) 

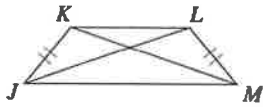
120

18) 

110

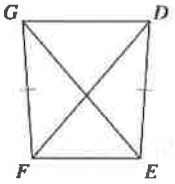
Find the length indicated for each trapezoid. Explain your reasoning.

19) $KM = 22$
Find JL



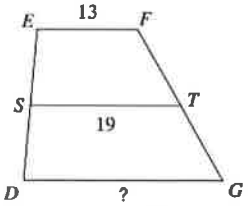
22

20) $DF = 8.7$
Find EG

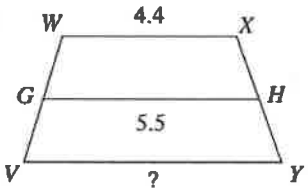


8.7

Find the length of the base indicated for each trapezoid.

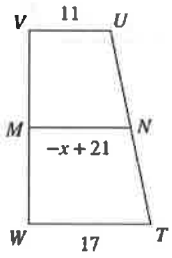
21) 

$x = 25$

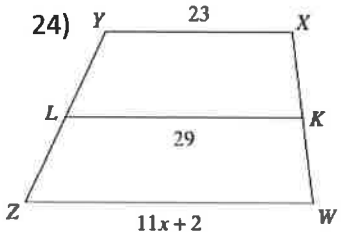
22) 

6.6

Solve for x. Each figure is a trapezoid.

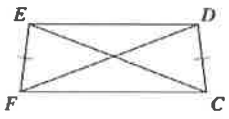
23) 

$x = 7$

24) 

$x = 3$

25) $EC = 20$
$FD = 5x - 10$



$x = 6$

26) A given trapezoid has one base that measures x^2, a second base that measures 34, and a midsegment that measures 10x – 1. Find x.

$2(10x - 1) = x^2 + 34$

$20x - 2 = x^2 + 34$

$x^2 - 20x + 36 = 0$

$(x - 18)(x - 2) = 0$

$x = 18, 2$

27) Classify the quadrilateral defind by points: W(-1, 2), X(3, 0), Y(4, -3), Z(-4, 1)

Isosceles Trapezoid