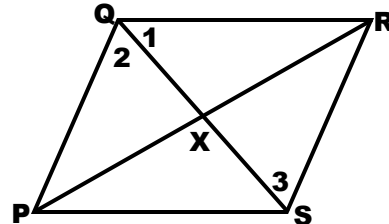


NAME _____ DATE _____ PER. _____

REVIEW #10: QUADRILATERALS

PART 1: PARALLELOGRAMS

Use parallelogram PQRS below to complete the following statements.

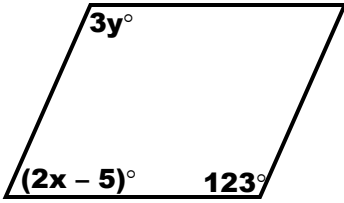
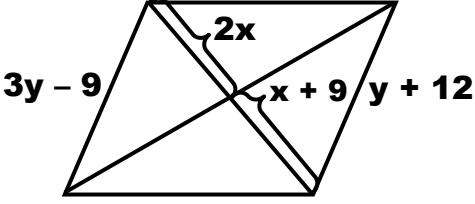
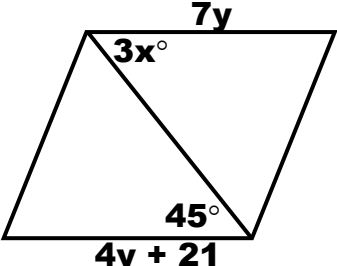


_____ 1.	If PS = 5, then QR = ?
_____ 2.	If PR = 20, then PX = ?
_____ 3.	If $m\angle QPS = 125^\circ$, then $m\angle QRS = ?$
_____ 4.	If $m\angle QPS = 125^\circ$, then $m\angle PQR = ?$
_____ 5.	If $m\angle QPS = 125^\circ$, then $m\angle PSR = ?$
_____ 6.	If $m\angle 1 = 27^\circ$ and $m\angle 2 = 30^\circ$, then $m\angle 3 = ?$ and $m\angle PSR = ?$

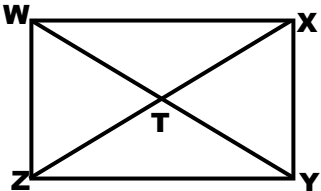
In exercises 7 –9, each quadrilateral is a parallelogram. Find the indicated values.

7. a = _____ b = _____ x = _____ y = _____	
8. a = _____ b = _____ x = _____ y = _____	
9. a = _____ b = _____ x = _____ y = _____	

In exercises 10 – 12, what values must 'x' and 'y' have to make each quadrilateral a parallelogram?

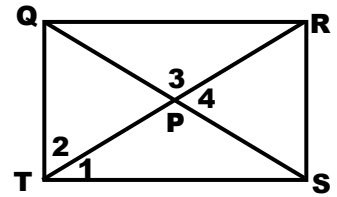
<p>10. $x =$ _____ $y =$ _____</p>	
<p>11. $x =$ _____ $y =$ _____</p>	
<p>12. $x =$ _____ $y =$ _____</p>	

PART 2: RECTANGLES Quadrilateral WXYZ is a rectangle.

<p>_____ 13.</p>	<p>If $WY = 19$, then $ZX = ?$</p>	
<p>_____ 14.</p>	<p>If $WY = 19$, then $WT = ?$</p>	
<p>_____ 15.</p>	<p>If $TX = 4.5$, then $WY = ?$</p>	
<p>_____ 16.</p>	<p>Rectangle GALS has diagonals \overline{GL} and \overline{AS}. If $GL = 3a + 6$ and $AS = 5a - 18$, find GL.</p>	
<p>_____ 17.</p>	<p>Rectangle BOYS has diagonals \overline{BY} and \overline{OS}, which intersect at X. If $m\angle XOB = 70^\circ$, then $m\angle YSO = ?$ and $m\angle BSO = ?$</p>	

Use rectangle QRST and the given information to solve problems 18 - 19.

_____ 18.	QP = 6, find RT.
_____ 19.	QT = 8, find RS.



Solve each of the following.

_____ 20.	In rectangle RAIN below, YR = 3x and NY = 18, find 'x'.
_____ 21.	$m\angle 1 = 55^\circ$, find $m\angle 2$.
_____ 22.	$m\angle 3 = 110^\circ$, find $m\angle 4$.

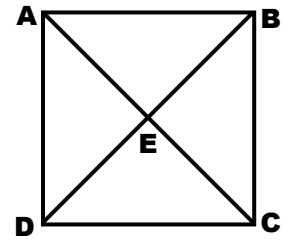
PART 3: SQUARES & RHOMBI

Find the indicated measure.

_____ 23.	FISH is a square with IT = 6. Find FS.
_____ 24.	If MNOP is a square, what is $m\angle MNP$?

Use square ABCD and the given information for problems 25 – 27.

_____ 25.	If $m\angle AEB = (3x)^\circ$, find 'x'.
_____ 26.	If $m\angle BAC = (9x)^\circ$, find 'x'.
_____ 27.	If $AB = 2x + 4$ and $CD = 3x - 5$, find BC.



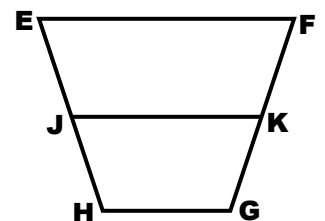
Find the indicated value.

_____ 28.	ACKJ is a rhombus. $AC = 6y + 4$, $CK = 5y + 8$, and $KJ = 3y + 16$. Find KJ.
_____ 29.	PQRS is a rhombus. $m\angle PQS = (3x + 10)^\circ$ and $m\angle SQR = (x + 40)^\circ$. Find $m\angle QSR$.

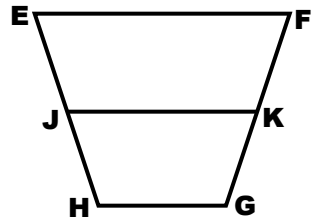
PART 4: TRAPEZOIDS

The diagram below shows a trapezoid and its median. Complete each of the following.

_____ 30.	If $EH = FG$, and $m\angle E = 65^\circ$, then $m\angle G = ?$ and $m\angle GKJ = ?$
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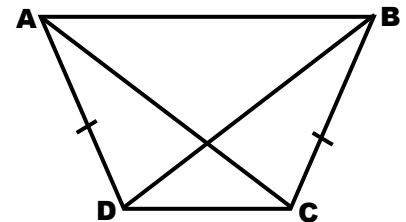


_____ 31.	If $EF = 36$, $JK = 4x$, and $GH = 2x + 6$, find JK .
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Find the value of 'x' in 32 & 33.

_____ 32.	
_____ 33.	
_____ 34.	MATH is an isosceles trapezoid with $\overline{AT} \parallel \parallel \overline{MH}$. If $m\angle M = (3x - 9)^\circ$ and $m\angle H = (x + 3)^\circ$, find $m\angle H$.
_____ 35.	Let $AC = 25$ and $DB = 5x$. Find 'x'.



PART 5. INTERIOR & EXTERIOR ANGLES OF POLYGONS

Classify each of the following polygons, then determine if it is convex or concave.

<p>36.</p> <p>Classification: _____</p> <p style="text-align: center;">CONVEX or CONCAVE?</p>	<p>37.</p> <p>Classification: _____</p> <p style="text-align: center;">CONVEX or CONCAVE?</p>
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Find the following.

_____38.	Find the sum of the measures of the interior angles of a decagon.
_____39.	Find the sum of the measures of the interior angles of an undecagon.
_____40.	Find the measure of one interior angle of a regular undecagon.
_____41.	Find the measure of one interior angle of a regular polygon with 15 sides.
_____42.	Find the number of sides of a regular polygon, if each interior angle has a measure of 162°
_____43.	Find the sum of the exterior angles of a 32-gon.
_____44.	Find the measure of one exterior angle of a regular polygon with 15 sides.
_____45.	Find the number of sides of a regular polygon if each exterior angle has a measure of 22.5° .