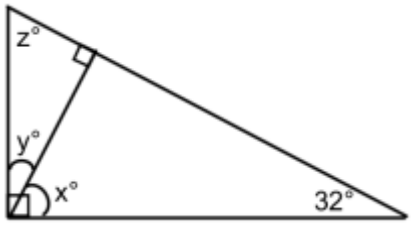
Geometry Honors
Unit 5: Parallel and Perpendicular Lines
5.4 Review

Mathematician: _____
Period:_____

5.4 Parallel Lines and Triangles

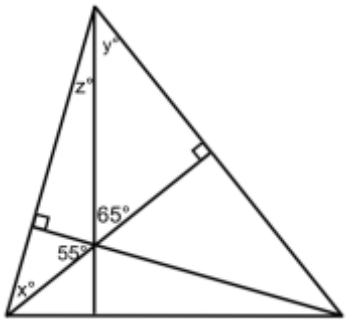
Directions: Find the value of the missing variables.

1)



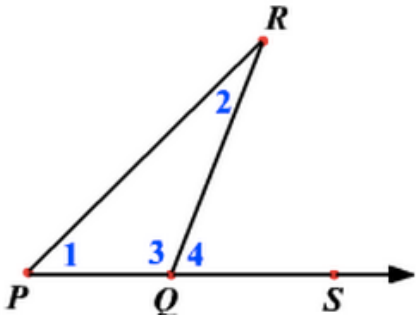
$x =$ _____ $y =$ _____ $z =$ _____

2)



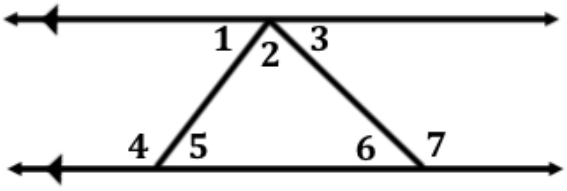
$x =$ _____ $y =$ _____ $z =$ _____

3) $m\angle 4 = 72°$.
Using the figure, select all of the correct responses. Select all that apply.



(A) $m\angle 1 + m\angle 2 > 180°$
(B) $m\angle 1 + m\angle 2 < 180°$
(C) $m\angle 1 + m\angle 2 = 72°$
(D) $m\angle 1 + m\angle 3 > 108°$
(E) $m\angle 1 + m\angle 3 = m\angle 4$

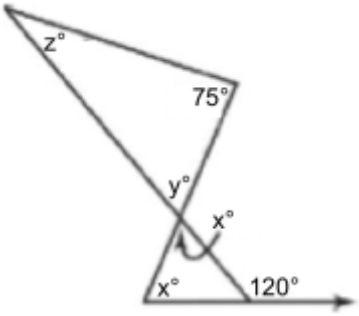
4) $m\angle 4 = 130°$. Using the figure, select all of the correct responses. Select all that apply.



(A) $m\angle 7 = m\angle 2 + m\angle 5$
(B) $m\angle 1 + m\angle 4 < 180°$
(C) $m\angle 3 = m\angle 6$
(D) $m\angle 2 + m\angle 6 = 180°$
(E) $m\angle 2 + m\angle 6 < 180°$

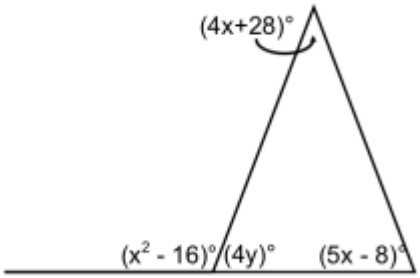
Directions: Find the value of the missing variables.

5)



$x =$ _____ $y =$ _____ $z =$ _____

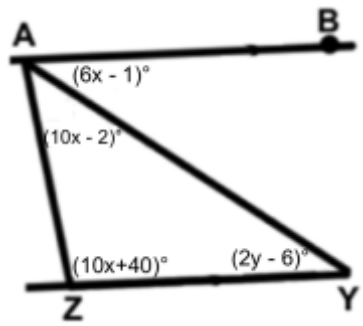
6)



$x =$ _____ $y =$ _____

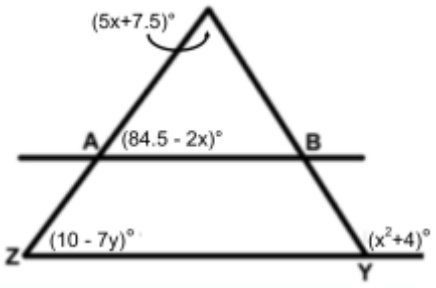
Directions: Find the value of x that makes lines $\overline{AB}$ and $\overline{ZY}$ parallel.

7)



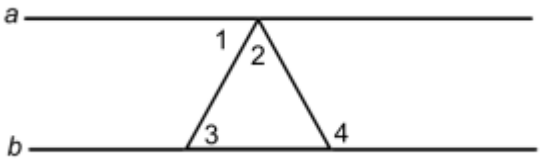
$x =$ _____ $y =$ _____

8)



$x =$ _____ $y =$ _____

9) Given: Line $a \parallel b$
Prove: $\angle 1 + \angle 2 = \angle 4$



Statements	Reasons