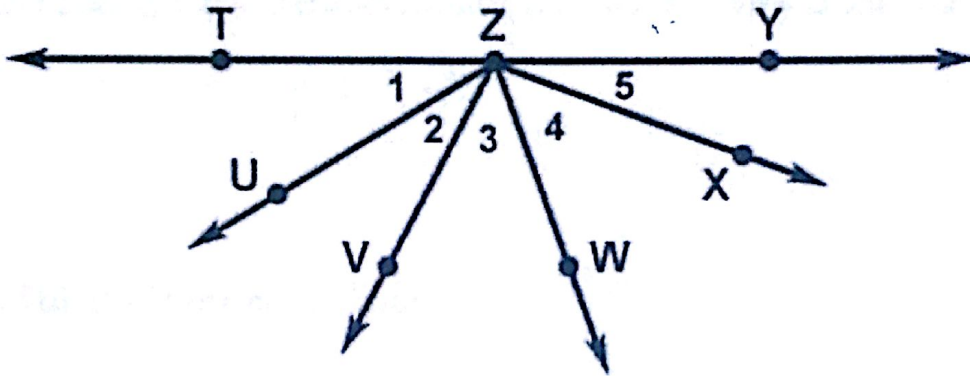


Basic Figures - Angle Addition Postulate & Angle Bisector

Use the diagram below to answer questions 1 – 16:



1. Name an angle adjacent to $\angle UZY$. $\angle TZU$
 2. Name an angle adjacent to $\angle XZT$. $\angle XZY$
 3. Name 3 angles adjacent to $\angle XZV$. $\angle XZY$, $\angle VZU$, $\angle VZT$
 4. Name 3 angles adjacent to $\angle WZY$. $\angle WZV$, $\angle WZU$, $\angle WZT$
 5. If $m\angle 3 = 8x$, $m\angle 4 = 4(x + 10)$, and $m\angle VZX = 124^\circ$, find x . $x = 7$
 6. If $m\angle 4 = 9x - 2$, $m\angle 5 = 5(x + 9)$, and $m\angle WZY = 85^\circ$, find x . $x = 3$
9. Suppose that \overline{ZU} bisects $\angle TZV$, $m\angle 1 = 9x - 14$, and $m\angle 2 = 5x - 2$. Find x and $m\angle 1$.
- $x = 3$
 $m\angle 1 = 13^\circ$

Angle Pairs - Complementary & Supplementary Angles (Part II)

1. If $\angle V$ and $\angle W$ are supplementary, and $m\angle V = 12x + 5$ and $m\angle W = 127$, find x .

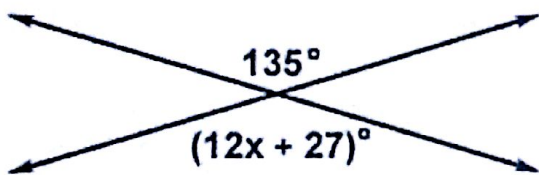
$$x = 4$$

2. If $\angle S$ and $\angle T$ are complementary, and $m\angle S = 4x + 3$ and $m\angle T = 39$, find x .

$$x = 12$$

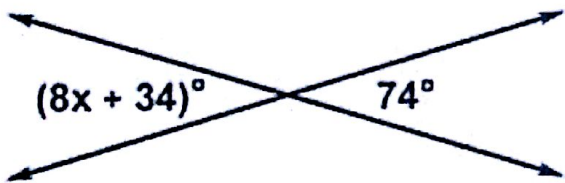
Angle Pairs - Vertical Angles

7. Using the diagram shown, find the value of x .



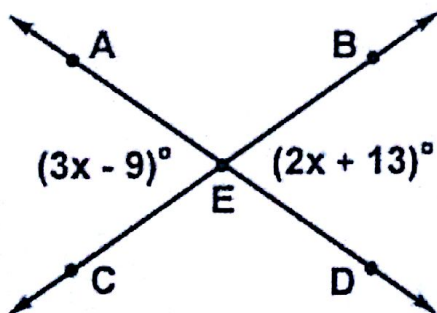
$$x = 9$$

8. Using the diagram shown, find the value of x .



$$x = 5$$

9. Using the diagram shown, find: x , $m\angle AEC$, and $m\angle BED$.



$$x = 22$$
$$m\angle AEC = 57$$
$$m\angle BED = 57$$