

DESCRIPTION	PICTURE	EQUATION AND JUSTIFICATION	SOLUTIONS
1. D is in the interior of $\angle ABC$ $m\angle ABD = 3x-4$ $m\angle DBC = 2x+5$ $m\angle ABC = 111$			$x = \underline{\hspace{2cm}}$ $m\angle DBC = \underline{\hspace{1cm}}^\circ$
2. R is in the interior of $\angle PDQ$ $m\angle PDR = x+14$ $m\angle RDQ = 3x-10$ $m\angle PDQ = 160$			$x = \underline{\hspace{2cm}}$ $m\angle PDR = \underline{\hspace{1cm}}^\circ$
3. X is in the interior of $\angle MAT$ $m\angle MAX = 5x+2$ $m\angle XAT = 3x+4$ $m\angle MAT = 150$			$x = \underline{\hspace{2cm}}$ $m\angle XAT = \underline{\hspace{1cm}}^\circ$
4. $\angle PXQ$ and $\angle QXT$ form a linear pair, $m\angle PXQ = 2x$ $m\angle QXT = 5x - 23$			$x = \underline{\hspace{2cm}}$ $\angle PXQ \underline{\hspace{1cm}}^\circ$
5. $\angle PXR$ and $\angle RXT$ form a linear pair $m\angle PXR = 3x$ $m\angle RXT = 5x + 20$			$x = \underline{\hspace{2cm}}$ $\angle RXT \underline{\hspace{1cm}}^\circ$
6. $\angle ABC$ and $\angle MRT$ are supplementary $m\angle ABC = 90$ $m\angle MRT = 7x + 27$			$x = \underline{\hspace{2cm}}$ $\angle MRT \underline{\hspace{1cm}}^\circ$
7. $\angle 1$ and $\angle 2$ are vertical angles. $m\angle 1 = 5x - 22$ $m\angle 2 = 3x + 16$			$x = \underline{\hspace{2cm}}$ $m\angle 1 = \underline{\hspace{1cm}}^\circ$
8. $\angle ABC$ and $\angle DBM$ are vertical angles. $\angle ABC = 5x$ $\angle DBM = x + 16$			$x = \underline{\hspace{2cm}}$ $m\angle ABC = \underline{\hspace{1cm}}^\circ$
9. $\angle ADQ$ and $\angle BDR$ are vertical angles. $m\angle ADQ = 3x+22$ $m\angle BDR = 6x-8$			$x = \underline{\hspace{2cm}}$ $m\angle BDR = \underline{\hspace{1cm}}^\circ$