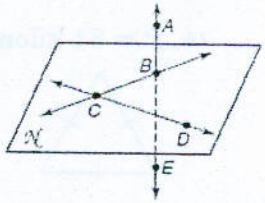
Unit One Pre-Test

Refer to the figure.



1. Name a line that is not contained in plane $\mathcal{N}$.

$\overleftrightarrow{AB}$ or $\overleftrightarrow{AE}$ or $\overleftrightarrow{BE}$

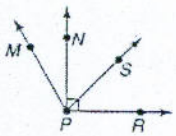
2. Name a plane that contains point B.

Plane $\mathcal{N}$

3. Name three collinear points.

A, B, E

Measure each angle in the figure and classify it as *right*, *acute*, or *obtuse*.



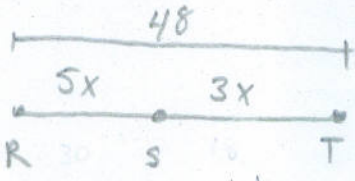
4. $\angle MPR$ Obtuse

5. $\angle RPN$ Right

6. $\angle NPS$ Acute

Find x and RS if S is between R and T.

7. $RS = 5x$, $ST = 3x$, and $RT = 48$.



$5x+3x=48$

$\frac{8x}{8} = \frac{48}{8}$

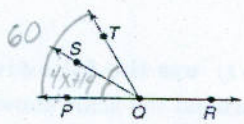
$x=6$

$5(6)$ $3(6)$

30 18

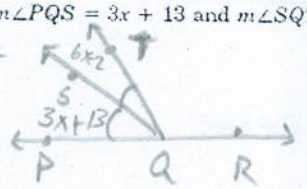
$\overline{QS}$ bisects $\angle PQT$, and $\overline{QP}$ and $\overline{QR}$ are opposite rays.

8. If $m\angle PQT = 60$ and $m\angle PQS = 4x + 14$, find the value of x.



$x=4$

9. If $m\angle PQS = 3x + 13$ and $m\angle SQT = 6x - 2$, find $m\angle PQT$.



$3x+13=6x-2$

$-13 \quad -13$

$3x = 6x - 15$

$-6x \quad -6x$

$-3x = -15$ $x=5$

$4x+14=30$

$-14 \quad -14$

$4x=16$

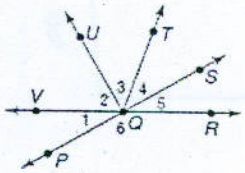
$x=4$

$6(5)+2=32$

$3(5)+13=32$

$m\angle PQT = 64°$

Identify each pair of angles as *adjacent*, *vertical*, and/or as a *linear pair*.



10. $\angle 1$ and $\angle 2$

Adjacent

11. $\angle 1$ and $\angle 6$

Adjacent or Linear pair

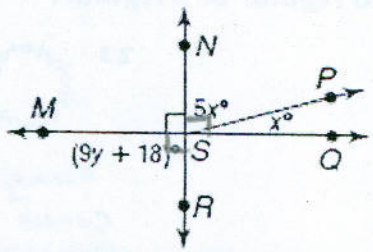
12. $\angle 1$ and $\angle 5$

Vertical

13. $\angle 3$ and $\angle 2$

Adjacent

14. Find x and y so that $\overline{NR} \perp \overline{MQ}$.



$5x+x=90$

$6x=90$

$9y+18=90$

$-18 \quad -18$

$9y=72$