

Name: _____

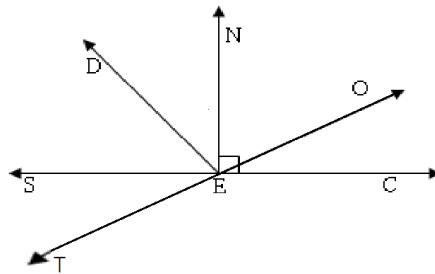
Angle Relationships Practice #4 Day 3

Directions: Use the diagram above to find the following. For each question you must show your geometry and justify your set up. Remember each question is independent and does not carry onto the next question. This diagram is not drawn to scale.

1. If $\angle NEC$ is a right angle, $\angle NEO = 5x + 1$ and $\angle OEC = 3x + 9$, find x .

Geometry

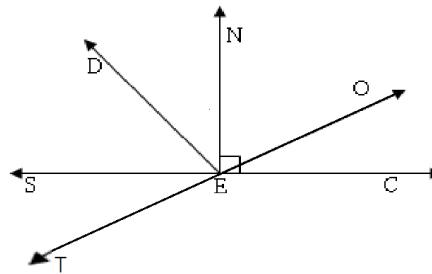
Justification



2. If $\angle DEC = 3x - 65$ and $\angle SED = x - 19$, find x .

Geometry

Justification

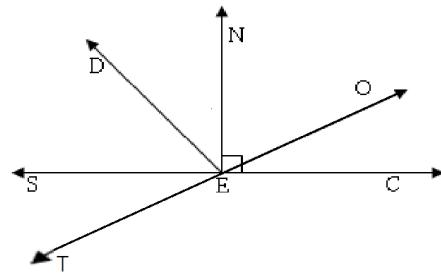


X= _____

3. If $\angle SET = 3x + 2$ and $\angle OEC = 83^\circ$, find x.

Geometry

Justification

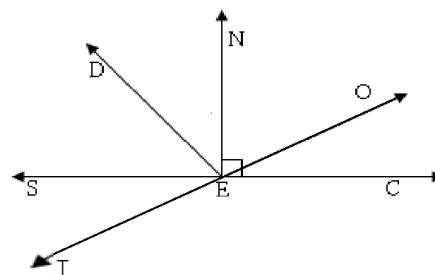


$$x = \underline{\hspace{2cm}}$$

4. If $\overrightarrow{EN} \perp \overleftrightarrow{SC}$, $\angle NEO = 4x + 7$ and $\angle OEC = 4x + 11$, find x.

Geometry

Justification



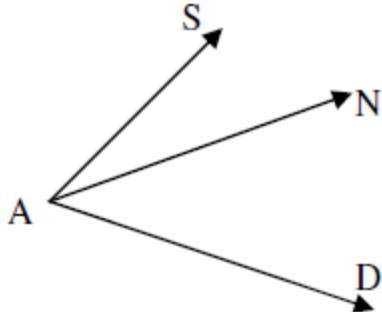
$$x = \underline{\hspace{2cm}}$$

5. If two angles are supplementary with measures $< 1 = 2x + 18$ and $< 2 = 5x + 1$, find x and the measure of both angles.

Geometry

Justification

6. Find x and the $m\angle SAD$ if $m\angle SAD = 16x - 2$, $m\angle SAN = 9x - 7$, and $m\angle DAN = 3x + 17$.



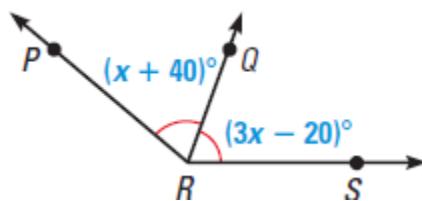
Geometry:

Justification:

7. In the diagram, \overrightarrow{RQ} bisects $\angle PRS$. The measures of the two congruent angles are $(x + 40)^\circ$ and $(3x - 20)^\circ$. Solve for x .

Geometry:

Justification:



8. If two angles are complementary with measures $\angle A = 16x - 4$ and $\angle B = 2x + 13$, find x and the measure of both angles.

Geometry

Justification

9. If $m \angle FGE = 5x + 10$ and $\overrightarrow{FC} \perp \overrightarrow{AE}$, find x .

Geometry:

Justification:

