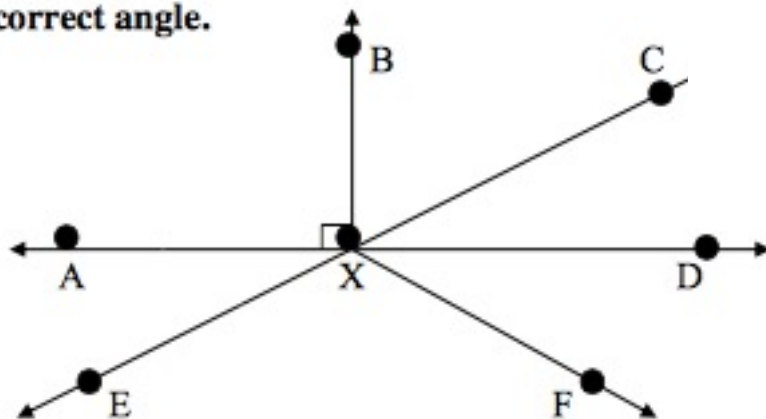# Angle Relationships Worksheet

A. Fill in the correct angle.
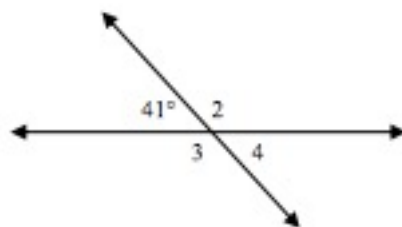

1) ∠ AXE and _____ are vertical angles.

2) ∠ AXF and _____ are supplementary angles.

3) ∠ DXC and _____ are complementary angles.

4) _____ and ∠ AXB are adjacent angles.

5) _____ and ∠ CXD are supplementary angles.

6) _____ and ∠ AXC are vertical angles.

B. Fill in the correct angle measurement.

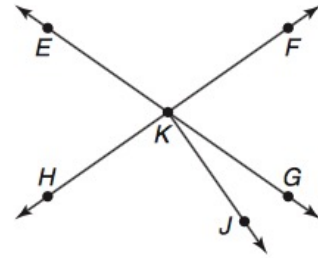7) What is the complement of an 11° angle?   _____

8) What is the supplement of a 92° angle?   _____

9) What is the complement of a 56° angle?   _____

For #10 – 12, use the diagram to the right.

10) m∠ 2 = _____
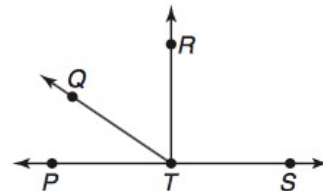
11) m∠ 3 = _____

12) m∠ 4 = _____

For Exercises 1–6, use the figure at the right and a protractor.

1. Name two acute vertical angles.

2. Name two obtuse vertical angles.

3. Name a linear pair.

4. Name two acute adjacent angles.

5. Name an angle complementary to $\angle EKH$.

6. Name an angle supplementary to $\angle FKG$.

7. Find the measures of an angle and its complement if one angle measures 18 degrees more than the other.

8. The measure of the supplement of an angle is 36 less than the measure of the angle. Find the measures of the angles.

ALGEBRA For Exercises 9–10, use the figure at the right.

9. If $m\angle RTS = 8x + 18$, find x so that $\overrightarrow{TR} \perp \overrightarrow{TS}$.

10. If $m\angle PTQ = 3y - 10$ and $m\angle QTR = y$, find y so that $\angle PTR$ is a right angle.

Determine whether each statement can be assumed from the figure. Explain.

11. $\angle WZU$ is a right angle.

12. $\angle YZU$ and $\angle UZV$ are supplementary.

13. $\angle VZU$ is adjacent to $\angle YZX$.