**Geometry Word Problem Warm-Up! Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Practice 1.5B Date\_\_\_\_\_\_\_\_\_\_\_**

**Draw a picture to represent each problem. Then write an equation and solve.**

1. Rays *PQ* and *QR* are perpendicular. Point *S* lies in the interior of $∠PQR$. If $m∠PQS=4+7a$ and $m∠SQR=9+4a$, find the $m∠PQS$ and $m∠SQR$.
2. The measure of the supplement of an angle is 60 less than three times the measure of the complement of the angle. Find the measure of the angle.
3. Lines *p* and *q* intersect to form adjacent angles 1 and 2. If $m∠1=3x+18$ and $m∠2=-8y-70, $find the values of *x* and *y* so that p is perpendicular to *q*.
4. The measure of an angle’s supplement is 44 less than the measure of the angle. Find the measure of the angle and its supplement.
5. Two angles are supplementary. One angle measures 12o more than the other. Find the measures of the angles.
6. The measure of $∠1$ is five less than four times the measure of $∠2$. If $∠1$ and $∠2$ form a linear pair, what are their measures?
7. The measures of two complementary angles are $16z-9$ and $4z+3$. Find the measures of the angles.
8. Find $m∠T,$ if $m∠T$ is 20 more than four times the measure of its supplement.