### 8.2 Isosceles Triangles and Base Angles Theorem Pre-AP Geometry HW

Name $\qquad$
Period $\qquad$ Date $\qquad$

Directions: You MUST show all work to receive any credit.

2.

4. In $\triangle \mathrm{PQR}, \mathrm{m} \angle \mathrm{P}=50^{\circ}$ and $\overline{\mathrm{PQ}} \cong \overline{\mathrm{QR}}$. If $m \angle Q=(5 x-2 y)^{\circ}$ and $m \angle R=(2 x+y)^{\circ}$ write a system of equations and solve for $x$ and $y$. Show all algebra.
5. Given: R is the midpoint of $\overline{Y A} ; \angle 1 \cong \angle 2$ Prove: $\overline{G Y} \cong \overline{R A}$

6. Given: $\overline{A E} \cong \bar{D} ; \angle A \cong \angle C$

Prove: $\triangle A B E \cong \triangle C B D$


