Name $\qquad$

## Put all answers to the multiple choice questions below. Use Capital Letters, please.

$\qquad$ 1. "If you like dogs, you like cats" is represented by $\mathrm{p} \rightarrow \mathrm{q}$. What would be the symbolic representation of "if you don't like cats, you don't like dogs"?
A. $\sim p \rightarrow q$
B. $p \rightarrow \sim q$
C. $\sim q \rightarrow p$
D. $\sim q \rightarrow \sim p$
2. Which set of numbers could be the sides of a triangle?
A. $6,14,8$
B. $9,11,21$
C. $8.5,17,10.6$
D. $14,4.7,4.7$
3. Consider the angles below: $\angle A=35^{\circ} \quad \angle B=40^{\circ} \quad \angle C=55^{\circ} \quad \angle D=60^{\circ} \quad \angle E=120^{\circ}$
Which of the following pair of angles would be complementary angles?
A. $\angle A$ and $\angle D$
B. $\angle D$ and $\angle E$
C. $\angle D$ and $\angle B$
D. $\angle A$ and $\angle C$
4. A is at $(4,3)$ and B is at $(6,0)$. If B is the midpoint of $\overline{A C}$, what are the coordinates of C ?
A. $(5,3)$
B. $(2,-3)$
C. $(8,6)$
D. None of the above
5. The inverse of "if you are old, you have a big head" is
" if you don't have a big head, then you are not old."
A. True
B. False
6. In $\triangle A B C \quad \angle A=8 x+12, \angle B=15 x-40$, and $\angle C=10 x+10$.

Determine the longest side of $\triangle A B C$.
A. $\overline{A B}$
B. $\overline{A C}$
C. $\overline{C B}$
D. $\angle A$
7. What is the midpoint of a line that has endpoints at $(-2,-3)$ and $(8,-1)$ ?
A. $(6,-4)$
B. $(6,-2)$
B. $(6,-2)$
C. $(3,-2)$
D. $(-6,-4)$
D. $(-6,-4)$
$\qquad$
8. If $\triangle A B C \cong \triangle H I M$, what must be true?
A. $\angle B=\angle H$
B. $\angle M=\angle C$
C. $\overline{A C}=\overline{I H}$
D. $\overline{B C}=\overline{M H}$
9. What is the distance from $(4,4)$ to $(7,5)$ ?
A. $\sqrt{2}$
B. $\sqrt{5}$
C. $\sqrt{10}$
D. $\sqrt{17}$
10. $\overrightarrow{B X}$ bisects $\angle A B C$. If $\angle A B X=36^{\circ}$, what is $\angle A B C$ ?

