$\qquad$ date $\qquad$

| 1. Which pairs of angles form vertical angles? <br> $\angle 7$ and $\qquad$ , $\quad \angle 8$ and $\qquad$ |  |
| :---: | :---: |
| 2. Which pairs of angles form a linear pair? <br> $\angle 7$ and $\qquad$ , <br> $\angle 8$ and $\qquad$ |  |
| 3. Complete the equation: $m \angle 8+\ldots=180^{\circ}$ |  |
| 4. Complete the equation: $m \angle 9=$ |  |

For each diagram, a) write an equation that uses the information about the labeled angles, b) solve for the variable.
(3x+81)

Use the figure to answer the following 11-13.
11. Name two complementary angles.
12. Name two supplementary angles.
13. If $\mathrm{m} \angle A F C=150^{\circ}$, what is $\mathrm{m} \angle C F D$ ?

14. $\angle P Q R$ and $\angle S Q R$ form a linear pair. What is the sum of their measures? $\qquad$
15. Name the ray that $\angle P Q R$ and $\angle S Q R$ share. $\qquad$

Use the figure for Problems 16-21.
16. Give the supplement of $\angle A E B$. $\qquad$
17. Give the complement of $\angle A E B$. $\qquad$

18. $x=$ $\qquad$ 19. $y=$ $\qquad$
20. $\mathrm{m} \angle D E C=$ $\qquad$ 21. $\mathrm{m} \angle A E D=$ $\qquad$
Find $m \angle 1$ and $m \angle 2$. Explain your reasoning.


Find the measures of $x$ and $y$. Explain your reasoning.
25.

$x=$ because
26.

27.


Which postulate or theorem relates the labeled angles? Find the measure of $x$. Show your work clearly.


