Geometry
Chapter 5.4-5.1 Worksheet
Name $\qquad$
Date $\qquad$ Per $\qquad$

Order the angles from least to greatest.
1.

2. In $\Delta T U V$
$U V=17 \mathrm{yd}$
$T V=14 \mathrm{yd}$
$T U=9 \mathrm{yd}$

Order the sides of the triangle from greatest to smallest.
3.

4. In $\Delta S T U$
$m \angle S=50^{\circ}$
$m \angle T=70^{\circ}$
$m \angle U=60^{\circ}$
5.

6. In $\triangle D E F$
$m \angle D=35^{\circ}$
$m \angle F=95^{\circ}$

State if the three numbers can be measures of sides of a triangle.
7. $3,6,2$
8. $8,10,16$
9. $6,14,20$

Two sides of a triangles have the following measures. Find the rand of the possible measures for the third side.
10. 9,5 ,
11. 6,10
12. 14,11 ,

## Use the figure at the right for Exercises 1-3.

1. If $R U=16, U T=20$, and $S R=16$, what is the perimeter of $\triangle S U T$ ?
2. If $S V=38, S U=26$, and the perimeter of $\triangle S U V$ is 102 , what is the value of $R U$ ?
3. If $\overline{S V} \cong \overline{U V}, S R=4 x-1$, and $R U=x+8$, what is the value of $S U$ ?


Use the figure at the right for Exercises 4 and 5.
4. If $m \angle B A C=33^{\circ}, B C=18$, and $C D=18$, what is $m \angle D A B$ ?
5. If $m \angle D A B=74^{\circ}, m \angle C A D=37^{\circ}$, and $B C=9.2$, what is the value of $C D$ ?
For Exercises 6-8, find the values.

6. $m, p$

7. $r, U W$

8. $y, m \angle D E F$


Solve the Proportion.
13.

$$
\frac{9}{8}=\frac{k+6}{6}
$$

14. $\frac{10}{p+2}=\frac{4}{3}$
15. $\frac{6}{b+9}=\frac{4}{b+5}$

Solve for the variable.
16.

17.

13.

16.


List the angles of $\triangle A B C$ from smallest to largest.
$A(4,-3), B(3,2), C(5,-4)$

The triangle inequality states that the sum of any two sides of a triangle must be greater than the third side.


