

Name:

Date:

1. $\angle R > \angle S$

2. $AB > BC$

3. (a) Yes

(b) No

(c) Yes

4. $l > 6$

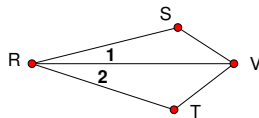
5. Each diagonal forms a triangle with each side of the parallelogram. This means that, if the diagonal is d , $d + 10 > 12$ and $10 + 12 > d$. This gives us a combined inequality, $2 < d < 22$.

6. If the third side is x , then $x + 15 > 20$ and $x < 15 + 20$ are our two constraints. Combined, this yields the inequality $5 < x < 35$. If you did not understand between as meaning strictly between, $6 \leq x \leq 34$ was also accepted.

7. Since the diagonal forms a right triangle with the sides of the rectangle, and the diagonal is the hypotenuse of the right triangle, we know that if d is the diagonal, $d > 100$.

8. The Right \angle and the Hypotenuse

9. There was a typo in this problem. It should have said $\overline{RS} \cong \overline{RT}$. Then because $\angle 1 > \angle 2$, and $\overline{RV} \cong \overline{RV}$, we have SAS Inequality and so $SV > TV$.



10. $\angle A > \angle D; NO > JK$