

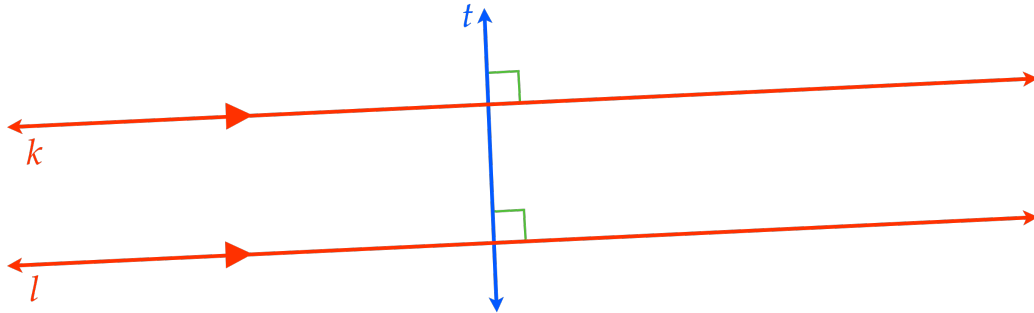
Perpendicular Transversal Theorem

Name _____

Date _____ Period _____

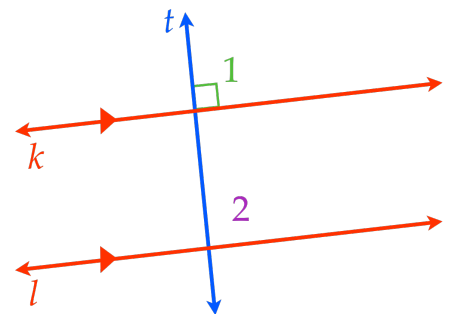
In a plane, if **two lines are parallel** and a **transversal** is **perpendicular** to one of them, then the **transversal** is **perpendicular** to the other **line**.

If **Line k \parallel Line l** ... and **transversal, Line t** is **perpendicular** to **Line k** ... then **transversal, Line t** is also **perpendicular** to **Line l** ...



In a plane, if **two lines are parallel** and a **transversal** is **perpendicular** to one of them, then the **transversal** is **perpendicular** to the other **line**.

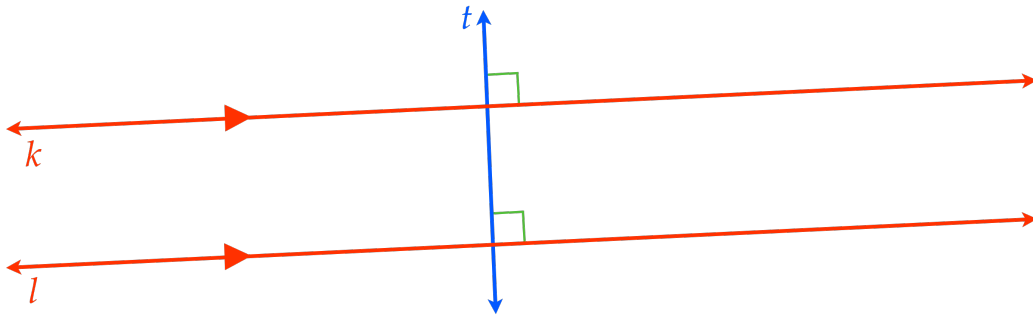
Statements	Reasons

Given: **Line $k \parallel$ Line l** **Line $t \perp$ Line k** Prove: **Line $t \perp$ Line l** 

Converse to Perpendicular Transversal Theorem

In a plane, if a transversal is perpendicular to two different lines,
then those two lines are parallel.

If the transversal, Line t is perpendicular to Line k and Line l ...
then Line $k \parallel$ Line l ...



Converse to Perpendicular Transversal Theorem

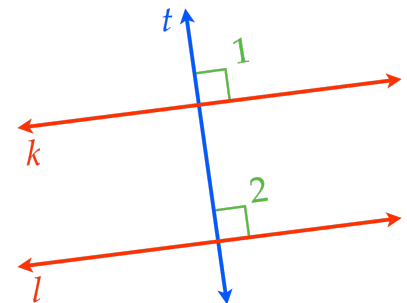
In a plane, if a transversal is perpendicular to two different lines,
then those two lines are parallel.

Statements	Reasons

Given: Line $t \perp$ Line l

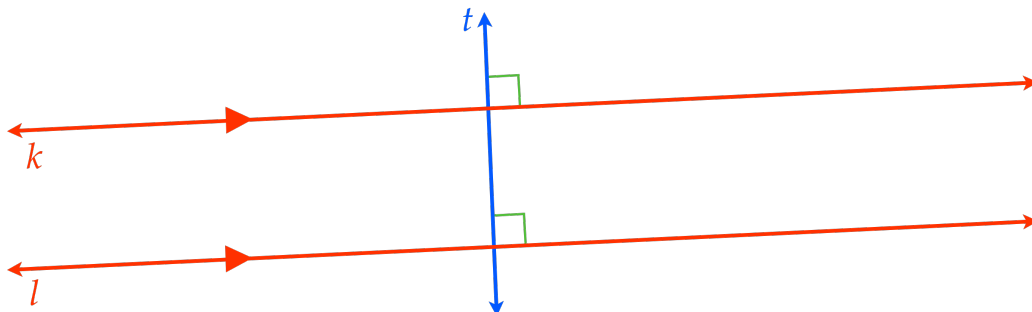
Line $t \perp$ Line k

Prove: Line $k \parallel$ Line l



In a plane, if two lines are parallel and a transversal is perpendicular to one of them, then the transversal is perpendicular to the other line.

If Line $k \parallel$ Line l ... and transversal, Line t is perpendicular to Line k ... then transversal, Line t is also perpendicular to Line l ...



Converse to Perpendicular Transversal Theorem

In a plane, if a transversal is perpendicular to two different lines, then those two lines are parallel.

If the transversal, Line t is perpendicular to Line k and Line l ... then Line $k \parallel$ Line l ...

