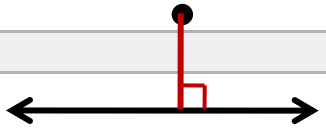
Geometry

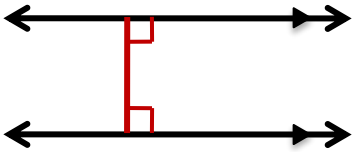
3.4 Proofs with Perpendicular Lines

Distance

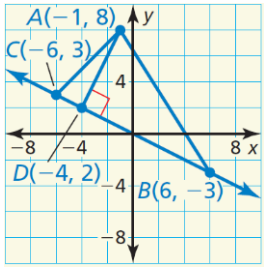
From _____ to line: length of _____ from point and ⊥ to line



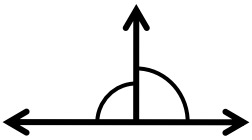
Between two parallel lines: length of _____ ⊥ to both lines



Find the distance from point A to $\overleftrightarrow{BC}$.

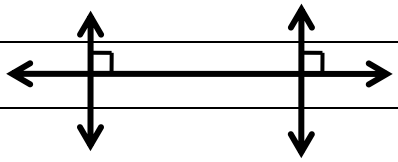


If two lines _____ to form a linear pair of _____ angles, then the lines are perpendicular.



Perpendicular Transversal Theorem

If a trans. is _____ to 1 of 2 _____ lines, then it is _____ to the other.



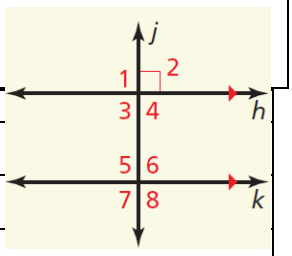
Lines ⊥ to a Transversal Theorem

In a plane, if 2 lines are _____ to the _____ line, then they are _____ to each other.

Prove the Perpendicular Transversal Theorem using the diagram and the Alternate Interior Angles Theorem.

Given: $h \parallel k, j \perp h$

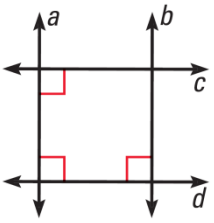
Prove: $j \perp k$



Statements	Reasons
1.	1.
2.	2.
3.	3
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

Is $b \parallel a$?

Is $b \perp c$?



Assignment: 146 #2, 10, 12, 14, 16, 18, 20, 21, 24, 26, 34, 40, 42, 45, 46 = 15 total