$\qquad$ Date $\qquad$ Pd $\qquad$

### 3.4 Perpendicular Line Proofs DAY ONE CYU

$\square$ Use when you get it right all by yourself
$\boldsymbol{S}$ Use when you did it all by yourself, but made a silly mistake HUse when you could do it alone with a little help from teacher or peer $\boldsymbol{G}$ Use when you completed the problem in a group $X$ Use when a question was attempted but wrong (get help)
$N$ Use when a question was not even attempted

| CONCEPTS | BASIC | INTERMEDIATE | ADVANCED |
| :--- | :---: | :---: | :---: |
| Distance Formula for a Coordinate Plane | 1 a | 1b |  |
| Line Pair Perpendicular Theorem | 17 |  | 6 |
| Perpendicular Transversal Theorem | $2 \mathrm{a}, 17$ | 5 | 6 |
| Lines Perpendicular to a Transversal Theorem | 17 |  | 6 |
| Pythagorean Theorem |  | 2b | 6 |
| Vertical Angles |  |  | 4 |
| Linear Pairs |  |  | 4 |
| Supplementary Angles |  | 5 | 4,6 |
| Alternate Exterior Angles Theorem |  |  |  |

1. Find the distance from A to $\overleftrightarrow{X Z}$.
a.

b.

2. Describe the error in words and then correct the error in the statement about the diagram.
a.

b.


The distance from point $C$ to $\overleftrightarrow{A B}$ is 12 centimeters.
3. Determine which lines, if any, must be parallel. Explain your reasoning.
a.

b.

c.

d.

e.

f.

4. Find all the unknown angle measures in the diagram. Justify your answer for each measure.

5. Find the value of $x$ when line $a$ is perpendicular to line $b$ and line $b$ is parallel to line $c$.

6. In which of the following diagrams is segment $A C$ parallel to segment $B D$ and segment $A C$ perpendicular to segment CD? Select ALL that apply.
(A)

(B)

(C)

(D)

(E)


CYU Reflection: How far can you go: basic, intermediate, or advanced?
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yourself.


