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

### 9.4 Tangent Trigonometric Ratio 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 |
| :--- | :---: | :---: | :---: |
| Tangent ratio | 1,2 | $3-8$ |  |
| Exact answer | $1,3-8$ |  |  |
| Rounded answer | $1,3-8$ | $9-11$ |  |
| Error Analysis |  | 2 | $12-13$ |
| Real- World Application |  | $9-11$ |  |
| Inverse Tangent |  |  |  |

1. Find the tangent of the acute angles in the triangle provided. Write each answer as a fraction AND as a decimal rounded to four decimal places.

2. Describe and correct the error in writing the statement of the tangent ratio for the given figure.


Find the value of $x$. Leave your answer exact and rounded to the nearest tenth.
3.

4.

5.

6.

9



Find the indicated angle measure to the nearest degree. Show the set up to earn full credit.
9.

10.

11.


## Real World Application

12. You are measuring the height of a water slide. You stand 58 meters from the base of the slide. You measure the angle of elevation from the ground to the top of the water slide to be $13^{\circ}$. Find the height $h$ of the slide to the nearest meter.

13. A surveyor is standing 30 feet from the base of a tall building. The surveyor measures the angle of elevation from the ground to the top of the building to be $65^{\circ}$. Find the height, $h$, of the building to the nearest foot.


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.


