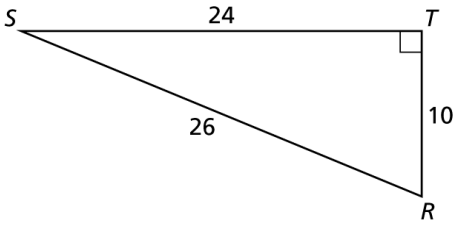
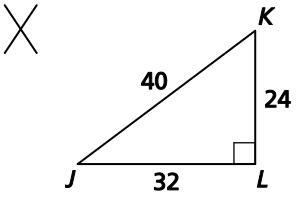
Name _____ Date _____

9.4 Practice A

1. Find the tangents of the acute angles in the right triangle. Write each answer as a fraction and as a decimal rounded to four decimal places.



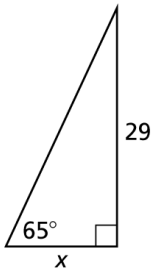
2. Describe and correct the error in writing the statement of the tangent ratio for the given figure.



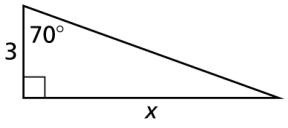
$\tan k = \frac{24}{32}$

In Exercises 3–8, find the value of *x*. Round your answer to the nearest tenth.

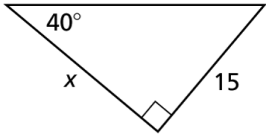
3.



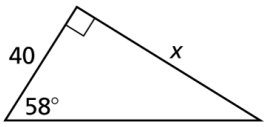
4.



5.



6.



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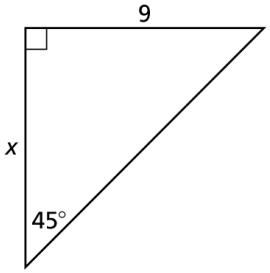
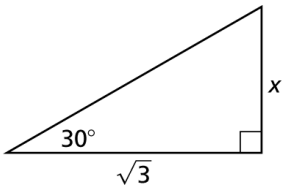
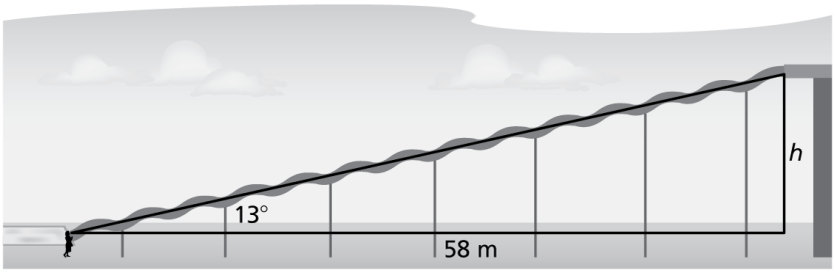


8.



9. 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°. Find the height *h* of the slide to the nearest meter.

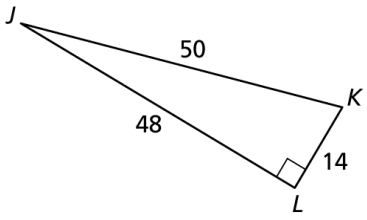


Name _____ Date _____

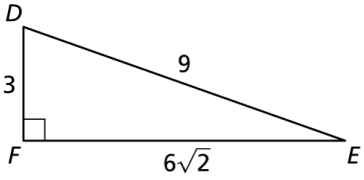
9.4 Practice B

In Exercises 1 and 2, find the tangents of the acute angles in the right triangle. Write each answer as a fraction and as a decimal rounded to four decimal places.

1.



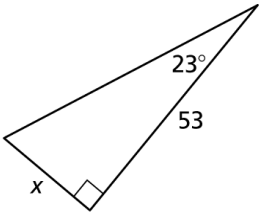
2.



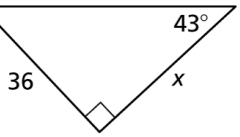
3. Draw and label the sides and angles of a triangle for which the tangents of the acute angles are equal to 1.

In Exercises 4–6, find the value(s) of the variable(s). Round your answer(s) to the nearest tenth.

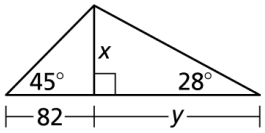
4.



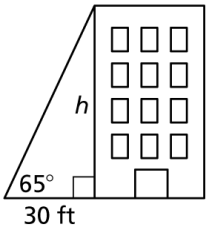
5.



6.



7. 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 $65°$. Find the height h of the building to the nearest foot.



8. In the diagram, $\overline{RQ} \perp \overline{PQ}$, $m\angle QPS = 32°$, $m\angle RPS = 24°$, and $PQ = 14$. Find RS to the nearest tenth of a unit.