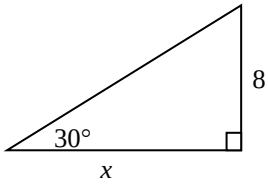
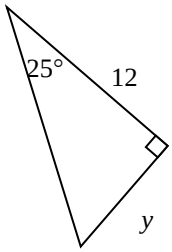
IM 2 Tangent Ratios #2 Name:_____Per:____

1. Write the equation using Tangent Ratio to find the missing side. Show all work.

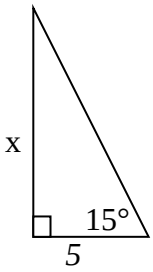
a.



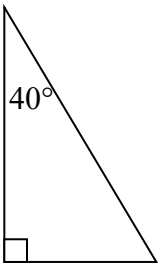
b.



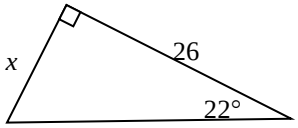
c.



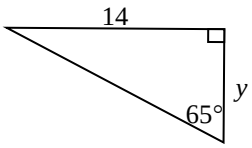
d.



e.

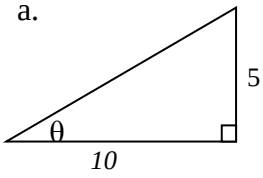


f.

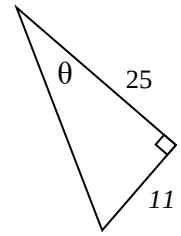


2. Use the Inverse Tangent ($\tan^{-1}$) to find the missing angle Θ. Show all steps.

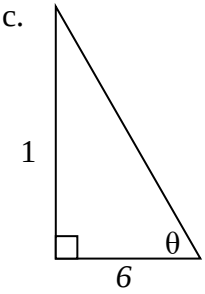
a.



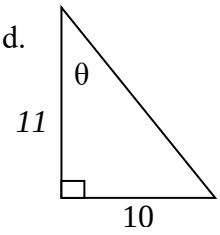
b.



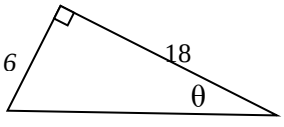
c.



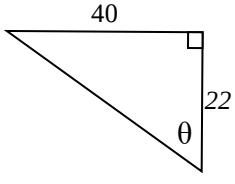
d.



e.



f.

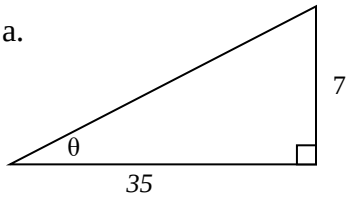


Check: 18.43, 23.75, 10.5, 5.6, 1.34, 6.53, 9.5, 61.2, 13.86, 11.92, 42.3, 26.57

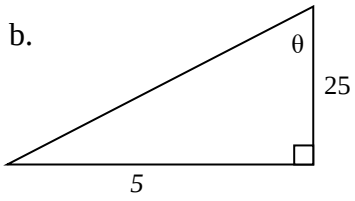
Check: 11, 21.8, 79, 68.2, 45, 45, 5, $\frac{1}{5}$, $\frac{1}{5}$, 5.2, 11.2, 1.73, 30, 63.43, 1.41, 5.39

3. State the Tangent Ratio for the following triangles (write the fraction, then reduce if possible.)

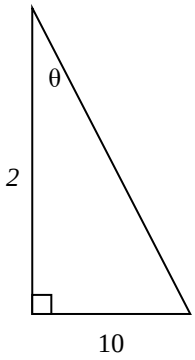
a.



b.



c.

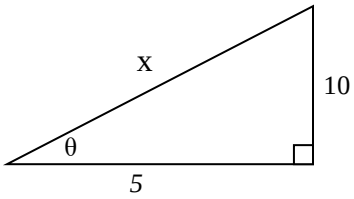


4. Draw a right triangle with the given slope ratio y/x. Find the hypotenuse using Pythagorean theorem AND the other two missing angles using tangent and triangle sum theorem. Clearly show all steps!

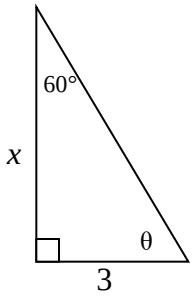
a. $\frac{1}{5}$ b. $\frac{5}{2}$ c. $\frac{1}{1}$

5. You now know everything you need to find all missing information about a right triangle. Use this knowledge to solve for x and θ. Clearly show all steps!

a.



b.



x = _____ θ = _____ x = _____ θ = _____