Trigonometry Practice

**For 1 – 6, use the figures given to find each trigonometric ratio. Express the answers as a fraction and simplify**!

1.$\cos(A)$ 2. $\tan(B)$ 3. $\sin(A)$



X

Y

 Z

4. $\tan(X)$ 5. $\sin(Z)$ 6. $\cos(X)$

**Find x. Round to the nearest tenth.**

****7. 8. 9.

10. 11. 12.

13. Use Triangle LMN to find *sin L, cos L, tan L, sin M, cos M,* and *tan M.* Express each ratio as a fraction. Simplify all answers!

*sin L = \_\_\_\_\_\_\_\_ sin M = \_\_\_\_\_\_\_*

*cos L = \_\_\_\_\_\_\_ cos M = \_\_\_\_\_\_\_*

*tan L = \_\_\_\_\_\_\_ tan M = \_\_\_\_\_\_\_*



14. Use Triangle RST to find *sin R, cos R, tan R, sin S, cos S,* and *tan S.* Express each ratio as a fraction. Simplify all answers!

*sin R = \_\_\_\_\_\_\_\_ sin S = \_\_\_\_\_\_\_*

*cos R = \_\_\_\_\_\_\_ cos S = \_\_\_\_\_\_\_*

*tan R = \_\_\_\_\_\_\_ tan S = \_\_\_\_\_\_\_*

15. Diego used a theodolite to map a region of land for his class in geomorphology. To determine the elevation of a vertical rock formation, he measured the distance from the base of the formation to his postion and the angle between the ground and the line of sight to the top of the formation. The distance was 43 meters and the angle was 36 degrees. What is the height of the formation to the nearest meter?