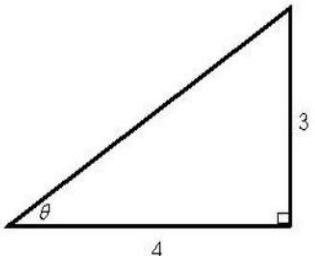
Unit 4: Introduction to Trigonometry

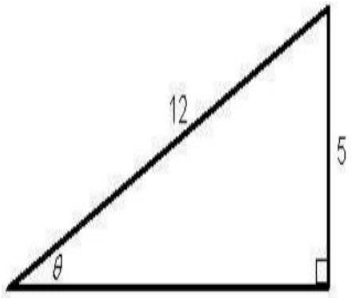
I. Find the exact values of the six trigonometric Functions of θ. No decimals! Write your answer in simplest form. Be sure to find the missing side! Show work.

1.



Missing side:

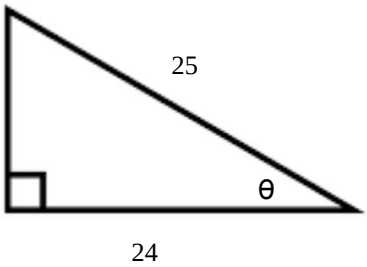
2.



Missing side:

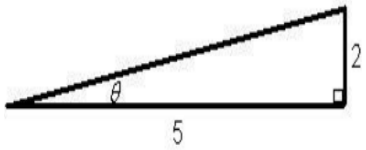
sin $\theta =$	csc $\theta =$	sin $\theta =$	csc $\theta =$
cos $\theta =$	sec $\theta =$	cos $\theta =$	sec $\theta =$
tan $\theta =$	cot $\theta =$	tan $\theta =$	cot $\theta =$

3.



Missing side:

4.

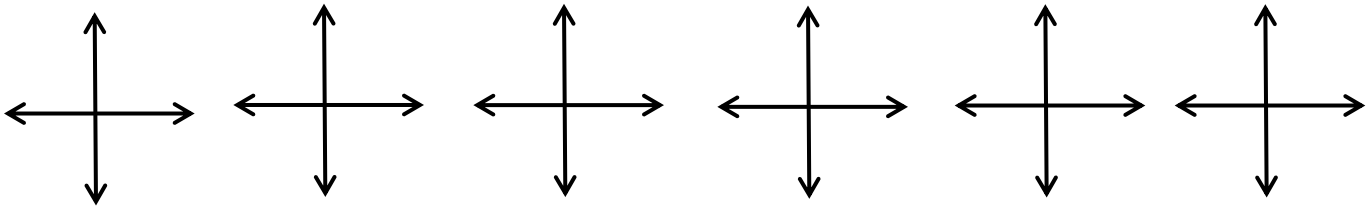


Missing side:

sin $\theta =$	csc $\theta =$	sin $\theta =$	csc $\theta =$
cos $\theta =$	sec $\theta =$	cos $\theta =$	sec $\theta =$
tan $\theta =$	cot $\theta =$	tan $\theta =$	cot $\theta =$

II. Sketch each of the following angles in standard position.

5. 150° 6. -120° 7. $-\frac{7\pi}{4}$ 8. $\frac{2\pi}{3}$ 9. 480° 10. -30°



III. Determine the quadrant in which the terminal side of the angle lies.

11. 130° _____ 12. -336° _____ 13. 285° _____ 14. -260° _____

15. $\frac{22\pi}{3}$ _____ 16. $\frac{7\pi}{5}$ _____ 17. $-\frac{17\pi}{3}$ _____ 18. $-\frac{\pi}{12}$ _____

19. 415° _____ 20. 1020° _____ 21. 718° _____ 22. -63° _____

IV. Express each of the following in radian measure. Leave your answer in terms of π.

23. 150° _____ 24. 315° _____ 25. -240° _____

26. 115° _____ 27. 345° _____ 28. -216° _____

V. Express each of the following in degree measure.

29. $\frac{5\pi}{9}$ _____ 30. $-\frac{7\pi}{12}$ _____ 31. $\frac{11\pi}{5}$ _____

32. $\frac{40\pi}{3}$ _____ 33. $-\frac{19\pi}{3}$ _____ 34. 121π _____