Trigonometry Review - Answers

1. $-\frac{1}{2}$ 2. $\frac{\sqrt{3}}{2}$ 3. $-\frac{1}{\sqrt{3}}$ 4. $-\sqrt{2}$ 5. 1

6. undefined 7. $-\frac{1}{2}$ 8. -1 9. $-\frac{1}{2}$ 10. $\frac{\sqrt{3}}{2}$

11. $-\frac{1}{\sqrt{3}}$ 12. 2 13. 0 14. -1 15. -2

16. $A=17^\circ,\ B=73^\circ,\ b=3\sqrt{5}\approx 6.7$ 17. $B=63^\circ,\ b=18.4,\ c=20.7$ 18. $A=42^\circ,\ B=53^\circ,\ C=85^\circ$

19. $a=17.9,\ B=51^\circ,\ C=74^\circ$ 20. $B_1=55^\circ,\ C_1=93^\circ,\ c_1=24.5$ $B_2=125^\circ,\ C_2=23^\circ,\ c_2=9.5$ 21. $C=104^\circ,\ b=7.8,\ c=26.0$

22. $292.3\,cm^2$ 23. $844.3\ ft^2$ 24. $-\frac{4}{\sqrt{5}}$ 25. $3\sqrt{11}$ 26. $-\frac{10}{\sqrt{19}}$ 27. $\frac{\sqrt{19}}{9}$

28. $\frac{9\sqrt{19}}{50}$ 29. $-\frac{31}{50}$ 30. $\frac{\sqrt{10+\sqrt{19}}}{2\sqrt{5}}$ or $\frac{\sqrt{50+5\sqrt{19}}}{10}$ 31. $-\frac{\sqrt{10-\sqrt{19}}}{2\sqrt{5}}$ or $-\frac{\sqrt{50-5\sqrt{19}}}{10}$

32. $\frac{3}{5}$ 33. $\frac{\sqrt{21}}{2}$ 34. $\frac{6+4\sqrt{21}}{25}$ 35. $\frac{-8-3\sqrt{21}}{25}$ 36. $-\frac{24}{25}$ 37. $\frac{\sqrt{70}}{10}$

38. $-\frac{3}{\sqrt{5}}$ 39. $-\frac{1}{9}$ 40. $-\frac{\sqrt{30}}{6}$ 41. $\frac{\pi}{3}$ 42. $-\frac{\pi}{4}$ 43. undefined

44. $\frac{2\pi}{3}$ 45. $\frac{\pi}{6}$ 46. $\frac{\pi}{2}$ 47. $\frac{3}{2\sqrt{10}}$ 48. $-\sqrt{17}$ 49. $\frac{3\sqrt{2}}{5}$

50. $\frac{-4\sqrt{2}}{9}$ 51. $\frac{7}{18}$ 52. $\frac{\sqrt{11}+15}{6\sqrt{10}}$ or $\frac{\sqrt{110}+15\sqrt{10}}{60}$

53. $\frac{-\sqrt{2}-6}{\sqrt{55}}$ or $\frac{-\sqrt{110}-6\sqrt{55}}{55}$ 54. $\sqrt{1-x^2}$ 55. $\frac{\sqrt{x^2+1}}{x}$

56-67. We'll go over the answers to these in class.