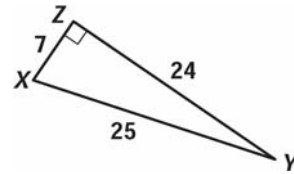
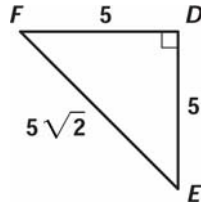
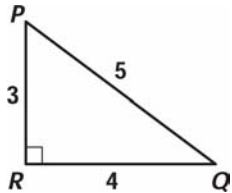


Lesson 2 Worksheet 2 Trigonometric Ratios

Part I: Find the value of the sine, cosine, and tangent ratios for each triangle below. Be sure to show your work and give both a fraction and a decimal answer for each one. Simplify fractions and radicals and round decimals to 2 places.



	Fraction	Decimal		Fraction	Decimal		Fraction	Decimal
1. $\sin P =$	_____	_____	7. $\sin F =$	_____	_____	13. $\sin X =$	_____	_____
2. $\cos P =$	_____	_____	8. $\cos F =$	_____	_____	14. $\cos X =$	_____	_____
3. $\tan P =$	_____	_____	9. $\tan F =$	_____	_____	15. $\tan X =$	_____	_____
4. $\sin Q =$	_____	_____	10. $\sin D =$	_____	_____	16. $\sin Y =$	_____	_____
5. $\cos Q =$	_____	_____	11. $\cos D =$	_____	_____	17. $\cos Y =$	_____	_____
6. $\tan Q =$	_____	_____	12. $\tan D =$	_____	_____	18. $\tan Y =$	_____	_____

Part II: Find the following ratios (decimal answers rounded to 2 decimal places) ratio for each of the following using a calculator. Make sure that the calculator is set to degree mode.

- | | | |
|-----------------------------|-----------------------------|-----------------------------|
| 19. $\sin 10^\circ =$ _____ | 27. $\cos 10^\circ =$ _____ | 35. $\tan 10^\circ =$ _____ |
| 20. $\sin 20^\circ =$ _____ | 28. $\cos 20^\circ =$ _____ | 36. $\tan 20^\circ =$ _____ |
| 21. $\sin 30^\circ =$ _____ | 29. $\cos 30^\circ =$ _____ | 37. $\tan 30^\circ =$ _____ |
| 22. $\sin 40^\circ =$ _____ | 30. $\cos 40^\circ =$ _____ | 38. $\tan 40^\circ =$ _____ |
| 23. $\sin 50^\circ =$ _____ | 31. $\cos 50^\circ =$ _____ | 39. $\tan 50^\circ =$ _____ |
| 24. $\sin 60^\circ =$ _____ | 32. $\cos 60^\circ =$ _____ | 40. $\tan 60^\circ =$ _____ |
| 25. $\sin 70^\circ =$ _____ | 33. $\cos 70^\circ =$ _____ | 41. $\tan 70^\circ =$ _____ |
| 26. $\sin 80^\circ =$ _____ | 34. $\cos 80^\circ =$ _____ | 42. $\tan 80^\circ =$ _____ |

43. **Think about it!** Why are sine and cosine ratios always less than 1, but tangents are not?