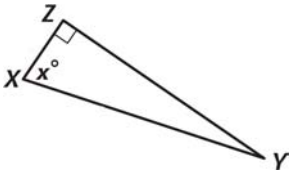
Name_____Date_____Class_____

## Lesson 2 Worksheet 1
## Identifying Opposite and Adjacent Legs

Label the sides of each right triangle below as the "adjacent" meaning the leg adjacent to the angle marked with an "x", "opposite" (opposite leg), or "Hypotenuse". (You may want to abbreviate using opp, adj, hyp.)

1.

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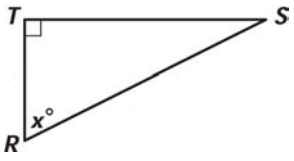
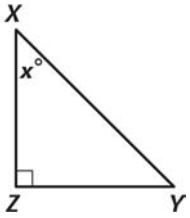



3.


4.

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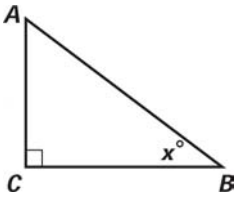
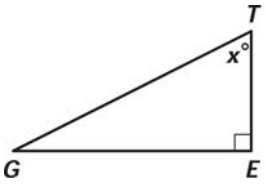
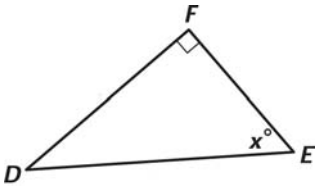


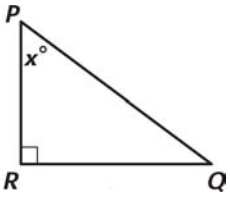

6.



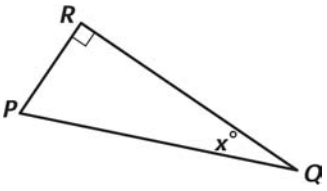

7.



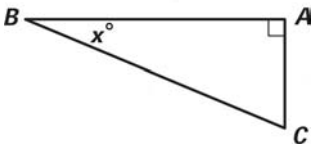

8.




9.



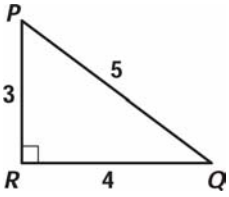

10.

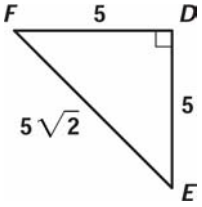


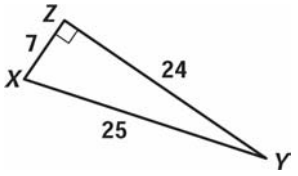
Name_____Date_____Class_____

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

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