Trig Chapter 2 Practice Test 2

Name: _____   Time›   Start: _____   Finish: _____   Total Time = _____

Factor each into the product of two binomials. If the expression cannot be factored, write "NOT FACTORABLE."

_____1. $x^2 - 36x + 35$ _____2. $x^2 - 4$

_____3. $5x^2 + 27x + 10$ _____4. $8x^2 + 22x + 15$

_____5. $2x^2 + 2x - 24$ _____6. $9x^2 + 30xy + 25y^2$

Use the busting B method to factor the following into the product of two binomials.

_____7. $2x^2 + 15x - 50$ _____8. $6x^2 + 25x + 4$

Factor completely.

_____ 9. $8x^3 - 125$ _____ 10. $64n^3 + y^3$

_____ 11. $n^3 - 27y^3$ _____ 12. $125n^3 + 8y^3$

_____ 13. $3n^4y + 9n^6y^2$ _____ 14. $45n^3y - 18n^4y$

_____ 15. $8nxy^2 - 8nxy^3$ _____ 16. $100n^3b + 200n^3b^9$

_____ 17. $x^3 + 5x^2 + 3x + 15$ _____ 18. $2k^3 + 2k - 7k^2 - 7$

_____ 19. $5b^3 - 10b^2 - b + 2$ _____ 20. $10k^3 - 15k + 2k^2 - 3$

Simplify in 21-24.

_____ 21. $\dfrac{n^2 - 5n - 14}{n^2 + 2n}$ _____ 22. $\dfrac{n^2 - 36}{n^2 - 11n + 30}$

_____ 23. $\dfrac{n^2+10n+21}{n^2+7n+12}$ _____ 24. $\dfrac{6n^2+5n+1}{2n^2-n-1}$

In 25 and 26, tell what x cannot be in the expressions.

_____ 25. $\dfrac{4x-5}{5x-6}$ _____ 26. $\dfrac{x-4}{x^2-9x+20}$

27. $a-3\overline{)a^2+2a-15}$ 28. $a-5\overline{)a^2-25}$ 29. $a^2+a+2\overline{)a^3+2a^2+3a+2}$

Solve the following equations by factoring. Circle your answers.

30. $x^2+7x-18=0$ 31. $x^2-17x+30=0$ 32. $x^2-25=0$

Use the quadratic equation to solve for x. The quadratic equation is $x=\dfrac{-b\pm\sqrt{b^2-4ac}}{2a}$.

33. $x^2+22x+120=0$ 34. $20x^2+41x-9=0$