

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." DON'T use the busting B method.

_____ 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. $\frac{n^2 - 5n - 14}{n^2 + 2n}$

_____ 22. $\frac{n^2 - 36}{n^2 - 11n + 30}$

_____ 23. $\frac{n^2 + 10n + 21}{n^2 + 7n + 12}$

_____ 24. $\frac{6n^2 + 5n + 1}{2n^2 - n - 1}$

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

_____ 25. $\frac{4x - 5}{5x - 6}$

_____ 26. $\frac{x - 4}{x^2 - 9x + 20}$

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 $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$.

33. $x^2 + 22x + 120 = 0$

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