

Trig Chapter 1 Practice Test 1

Name: _____

Time Start: _____ Finish: _____

Total Time = _____

Solve each equation.

1. $2(3n - 1) - (3n - 1) = 2(2n + 5)$

2. $5(3n - 2) = 6(2n + 5)$

3. $5(x - 2) - (3x - 7) = 6(-2x + 4)$

4. $5(7x - 12) + 2(3x + 5) = 7x - 6$

Simplify each expression or radical

_____ 5. $(3n^5)^2$

_____ 14. $(3x^5)(4x^7)$

_____ 6. $n^5 \cdot n^3$

_____ 15. $(2a^2b^3)^2$

_____ 7. $(n^2)^4$

_____ 16. $(2abc)(-3abc)$

_____ 8. $2n^3y^2 + 4n^3y + 5n^3y^2 + 6n^3y$

_____ 17. $a^2 \cdot a^4$

_____ 9. $(2y^4)(3y^4)$

_____ 18. $(3ab^2)(3ab)$

_____ 10. $(x + 2)(x - 7)$

_____ 19. $(-4a^4b^{10})(-2a^4b^3)$

_____ 11. $(2x + 3)^2$

_____ 20. $(2a^4b^3c^2)^3$

_____ 12. $(2x^2 + 5x)(5x^2 - 2x - 1)$

_____ 21. $(ab^3)(4a^2b^2)$

_____ 13. $(3n^3y^5)^2 + 2n(n^5)y^{10}$

_____ 22. $2x \cdot 3x \cdot 2x^2 \cdot 3x$

_____ 23. $\sqrt{-40}$

_____ 34. $\frac{9 \pm \sqrt{45}}{6}$

_____ 24. $\sqrt{a^3 b^6}$

_____ 35. $\frac{n^6}{y^{10}} \cdot \frac{y^{12}}{n^5}$

_____ 25. $\sqrt{-80a^2}$

_____ 36. $n^{-3} \cdot y^5 \cdot n^{-2} \cdot y^{-3}$

_____ 26. $\sqrt{128}$

_____ 37. $\frac{c^3 w^{-5} h^{-1}}{c^{-1} w^{-2} h}$

_____ 27. $\sqrt{-600}$

_____ 38. $\left(\frac{a^{-2} b^2}{ab^{-4} c}\right)^{-2}$

_____ 28. $\sqrt[3]{a^9 b^6}$

_____ 39. $\left(\frac{2}{5}\right)^{-2}$

_____ 29. $\sqrt[3]{16x^4 y^8}$

_____ 40. $(3a^{-5})^2$

_____ 30. $\sqrt[5]{x^6 y^{12}}$

_____ 41. $(2s^{-3} t^2 u^{-1} d)^{-3}$

_____ 31. $\sqrt[4]{12960}$

_____ 42. $\frac{y^3 e^{-5} s^3}{y^7 e^2 s^{-4}}$

_____ 32. $\frac{8 \pm \sqrt{-8}}{2}$

_____ 43. $\frac{-8ny}{10ny^3}$

_____ 33. $\frac{6 \pm \sqrt{-27}}{3}$

_____ 44. $\frac{20 \pm \sqrt{75}}{15}$

_____ 45. Starting with a blue light, a strand of colored lights contains lights in a repeating pattern of blue, orange, green, purple, red, and yellow. What is the color of the 143rd light?
A. Blue B. Orange C. Green D. Purple E. Red

_____ 46. If $2^{k+m} = 128$ and $3^m = 27$, then what is the value of 2^k ?