

Basic Algebra Review

Name: _____

Period: _____

Before diving into problem solving with physical applications, let's review the necessary elements of algebra that you will need in this course.

Show all your work!!!

1. $2x + 6 = 0$

6. $\frac{y}{8} = 2$

2. $x - 6 = 4$

7. $\frac{z}{12} = 1$

3. $y + 8 = 12$

8. $\frac{10}{x} = 5$

4. $3y + 1 = 16$

9. $\frac{39}{x} = 3$

5. $6y = 24$

10. $x^2 = 16$

11. $x^2 = 16 + 9$

17. $10 = 4 + 3x$

12. $x^2 + 5 = 41$

18. $8 = \frac{1}{2}x^2$

13. $\frac{x^2}{4} = 4$

19. $18 = \frac{1}{2}x^2$

14. $\frac{x^2}{3} = 27$

20. $32 = \frac{1}{2}y(4^2)$

15. $\frac{40}{x^2} = 10$

21. $z^2 = 3^2 + (2)(8)$

16. $\frac{27}{x^2} = 3$

22. $12^2 = x^2 + 23$