

Worksheet 4-2 - PreAlgebra

Negative Exponents

Write each expression using a positive exponent.

1. 7^{-8}

2. 10^{-6}

3. 23^{-1}

4. $(-5)^{-2}$

5. $(-18)^{-10}$

6. m^{-99}

7. $(-1)^{-12}$

8. c^{-6}

9. p^{-5}

10. g^{-17}

11. z^{-4}

12. t^{-2}

Write each fraction as an expression using a negative exponent other than -1 .

13. $\frac{1}{2^{10}}$

14. $\frac{1}{29^3}$

15. $\frac{1}{4^4}$

16. $\frac{1}{39}$

17. $\frac{1}{81^7}$

18. $\frac{1}{m^4}$

19. $\frac{1}{x^3}$

20. $\frac{1}{a^2}$

21. $\frac{1}{49}$

22. $\frac{1}{8}$

23. $\frac{1}{144}$

24. $\frac{1}{169}$

Evaluate each expression if $x = 3$, $y = -2$, and $z = 4$.

25. x^{-4}

26. y^{-2}

27. y^{-5}

28. z^{-4}

29. 5^y

30. 10^y

31. $3z^{-1}$

32. z^y

33. $(xz)^{-2}$

34. Hair grows at a rate of $\frac{1}{64}$ inch per day. Write this number using negative exponents.