Exponents and Polynomials

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Pre-Calculus Mathematics for Business and Economics

Sub-Topics

1. Solving a quadratic in written form
2. Square-root property
3. Factoring
4. Power Rules
5. Factoring by Group
6. Collect Like-Terms

Solving a quadratic in written form: Graph the solution to the following on the number line.

$(x+6)(x-5) > 0$

Square-Root Property: Solve for x and simplify as much as possible (using the square-root property)

$x^2 = 50$

Factoring Intro: Expand the following:

$(x-1)(x+4) =$

Factoring: Factor the following completely:

$9y^6 - 24y^5 + 16y^4$

Power Rules

$$(4^2)(4^3) =$$

$$\left(\frac{3}{5}\right)^3 =$$

Power Rules

$$4^{-1} =$$

$$(4^{-2})(4^{-3}) =$$

Power Rules

$4^0 =$

$(4^2)^3 =$

Power Rules: Write your answer without using negative exponents:

$$\left(4x^{-2}y^{3}\right)^{-3} =$$

Factor by Grouping: Factor by grouping:

$10v^3 + 8v^2 - 5v - 4$

Combining Like Terms:

$$-4\left(-5u-y\right)-3(-5y+3u)$$