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Open

Extra Practice

10.3

Name _____

In 1–4, simplify the expression.

1. $\frac{x^2 - 16}{x^2 + x - 12}$

2. $\frac{x^2 - 2x - 15}{x^2 - 4x - 5}$

3. $\frac{x^2 - 8x + 12}{x^2 + 3x - 10}$

4. $\frac{x^2 - 2x + 1}{x^2 - 1}$

In 5–12, multiply the expressions and simplify.

5. $\frac{4x^2y^3}{x^3y^4} \cdot \frac{xy}{20x^7}$

6. $\frac{16x^3y^7}{2x} \cdot \frac{9xy^2}{64x^2y}$

7. $\frac{3x^2 - 12}{3x - 10} \cdot \frac{1}{2x + 4}$

8. $(x - 5) \cdot x^2 + 11x + 30$

9. $\frac{x^2 - 36}{x^2 + 9x + 10}$

10. $\frac{x^2 - 7x - 8}{3x^2 - 24x} \cdot \frac{4x^3}{x^2 - 1}$

11. $x^2 + 4x - 12 \cdot 6x^2$

12. $x^2 + 9x^3 + 18x^2 \cdot 6x^4$

In 13–20, divide the expressions and simplify.

13. $\frac{x^2 - 3x + 2}{25x} \div \frac{x - 1}{5x^2}$

14. $\frac{5x^2 - 20}{25x^2} \div \frac{x^2 + 6x + 8}{x^2 + 10x + 24}$

15. $(x - 7) \div \frac{x^2 + 9x + 14}{x^2 + 5x + 6}$

16. $(x^2 - 5x - 36) \div \frac{x^2 - 10x - 9}{x - 1}$

17. $\frac{x^2 - 9x - 22}{x^2 + 5x - 24} \div \frac{x + 2}{x - 3}$

18. $\frac{x^2 - 2}{x^2 + 7x - 18} \div \frac{x^2 - 6x^2 - 27x}{x^2 + 8x - 9}$

19. $\frac{x^2 - 3x + 2}{x + 2} \cdot \frac{3x}{x - 2} \cdot \frac{2x + 4}{5x^2 - 5x}$

20. $(x^2 - 10x - 24) \div \frac{x^2 - 144}{3x - 36}$

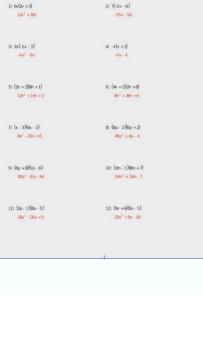
In 21–24, perform the operation and simplify.

21. $\frac{x^2 - 3x + 2}{x + 2} \cdot \frac{3x}{x - 2} \cdot \frac{2x + 4}{5x^2 - 5x}$

22. $\frac{x^2 - 100}{4x^2} \cdot \frac{x^3 - 5x^2 - 50x}{x^4 - 16x^2} + \frac{(x - 10)^2}{5x}$

23. $(x^2 + 7x - 30) \div \frac{x^2 + 5x - 24}{x + 2} \cdot \frac{x + 2}{x^2 + 3x + 2}$

24. $(x^2 + 10x^2) \div \left(\frac{x^2 - 9}{x + 3} \cdot \frac{x + 10}{x^2 + 7x + 12} \right)$



is negative, we only need to think about pairs that have 1 negative factor and 1 positive factor. Enter Expression, Expression, $(x^2-y^2) / (x-y)$ Trinomial Factor Spreadsheet Trinomial Factor Calculator Answer: A trinomial is a polynomial with 3 terms. Multiply Polynomials â Word Problems Calculate the area and volume of the geometric shapes by replacing the parameters known as length, width, base, height in the appropriate formulas. Remember to simplify it by combining similar terms. (If you need help factoring trinomials when \$\$ to my 1 \$\$, then go here.) Formula steps Identify a, \$\$ \text{blue} b \$\$, and \$\$ \text{red} c \$\$ in trinomial \$\$ ax^2 + \text{blue} bx + \text{red} c \$\$. Write all pairs of factors of \$\$ \text{red} c \$\$. Identify which pair of factors from the previous step add up to \$\$ \text{blue} b \$\$. Replacing pairs of factors in two binomials Factor \$\$ x^2 + 5x + 4 \$\$. Step 1 Identify a, b, and c on the trinomial axis $x^2 + bx + c$: $a = 1$, $b = 5$, $c = 4$. Step 2 Enter all the factors of $\text{red} c$ are multiplied to $\text{red} c$ (Note: since $\text{red} c$ is positive, we only need to think of pairs that are positive or negative). PDF worksheets have squares or squares to multiply monomials, binomials and polynomials. Thank you very much for your cooperation. Binomial Multiplication - Multivariate Learn about multivariable binomials with these printable worksheets for high school! Group the coefficients and variables, apply the rule of the product of the exponents, and find the product of the two binomials. Remember that a negative multiplied by a negative is a positive) Step 3 Identify which pair of factors from the previous step add up to -5 . Step 4 Replace that pair of factors into two binomials . In other words, there must be an exponent of '2' and that exponent must be the largest exponent. (15 Worksheets) In order to continue to enjoy our site, we ask you to confirm your identity as a human. (The difference is that a quadratic trinomial has a degree of 2) It is always easier to understand a new concept by looking at an image of a new product rieht enimretd ot rehtegot smret ekil eht tup ,slaimonirt owt eht ylpitluM .1 si 2x fo tnorf ni tneiciffeoc eht revenehw hcaorppa siht esu lliw ew ,sdrow rehto nI .slaimonirt citardauq no sucof lliw egap sihT .evitagen htob ro evitisop htob rehtie era taht sriap tuoba kniht ot deen ylno ew evitisop si 3 der $\$$ ecnis :etoN(3 der $\$$ fo sriap rotcaf lla nwod etirW 2 petS $\$$ } $3 = c$ { der $\$$ } $4 = b$ { eulb $\$$ } $1 = a$ $\$$ $\$$ $\$$ c + xb + 2^{xa} $\$$ laimonirt eht ni c dna b ,a yfitnedI 1 petS $\$$ $3 + x4 + 2^{\text{x}}$ $\$$:laimonirt gniwollof eht rotcaf $\$$ $4 + x5 + 2^{\text{x}}$ =) $1 + x($ $4 + x($ 5 petS slaimonib owt otni riap rotcaf taht etutitsbuS 4 petS $\$$ b eulb $\$$ $\$$ ot pu smus pets suoiverp eht morf riap rotcaf hcihw yfitnedI 3 petS .mret elgnis a htiw slaimonylop htiw gnilaed steehskrow slaimonom gniylpitlum eseht htiw gnipperp tratS slaimonoM fo noitacilpitluM !eरf rof steehskrow eseht fo emos ssecca gnipuorG yb rotcaf fo woH gnirotcaf fo sdohteM scitardauQ gnivloS :skniL detaileR rotalacluC laimonirT rotcaf $\$$ $51 - x2 - 2^{\text{x}}$ =) $5 - x($ $3 + x($ 5 petS slaimonib owt otni riap rotcaf taht etutitsbuS 4 petS $\$$ } $2 - \{$ eulb $\$$ } 0 ot pu smus pets suoiverp eht morf riap rotcaf hcihw yfitnedI 3 petS).evitagen a si evitagen a semit evitagen a rebmemer .dnoceS eht fo mret yreve htiw laimonirt tsrif eht fo mret hcae gnitaert yb slaimonirt etairavitlum owt ylpitluM elbairavitluM - slaimonirT gniylpitluM .srotcaf evitagen eseht redisnoc ot evah od ew os... 4 evitisop si $2 - \text{todc}$ $2 - \$$ uoy swohs thgir eht no trahc eht sA .egap rep elbairav elgnis htiw snoisserpxe euqinu thgie fo gnisirpmoc steehskrow laimonib fo noitacilpitlum eseht ni ,laimonib dnoceS eht fo mret yreve htiw laimonib tsrif eht fo mret hcae ylpitluM elbairaV elgniS - slaimoniB gniylpitluM)steehskroW 12(!oot slaimonom gnissim eht dniF .tsrif taht od dna nwod llorcS tnaw thgim uoy os elpmaxe