Exponent Quiz coming soon!!

20 points

No notes

No calculator

Today's assignment is online.

"Getting Started" and "Algebraic Expressions" will automatically appear on your Webassign dashboard (ebook account) at the beginning of class.

Exponents#1-25

check multiple choice answers

1. **B**
2. **D**
3. **C**
4. **D**
5. **D**
6. **A**
7. **C**
8. **D**
9. **A**
10. **C**
11. **B**

$2^{4x-(4x-1)}$

$= 2^{4x-4x+1}$

$= 2^1$

$(-4)^2 = 16$

23

25

Show work

Notes: 1.3

Special Factoring Formulas

Formula	Name
1. $A^2 - B^2 = (A - B)(A + B)$	Difference of squares
2. $A^2 + 2AB + B^2 = (A + B)^2$	Perfect square
3. $A^2 - 2AB + B^2 = (A - B)^2$	Perfect square
4. $A^3 - B^3 = (A - B)(A^2 + AB + B^2)$	Difference of cubes
5. $A^3 + B^3 = (A + B)(A^2 - AB + B^2)$	Sum of cubes

Apply process in reverse to find special MULTIPLICATION FORMULAS

Other types of factoring that you will use today:

FOIL:

factor: $x^2 - 12x + 27 = (x-3)(x-9)$

add multiply F O I L

expand (multiply): $(x + 3)(x - 7) = x^2 - 4x - 21$

$3x$ $-7x$

GCF:

Greatest Common Factor

$x^2 - 2xy = x(x-2y)$

$5x^2y - 20xy + 15y = 5y(x^2 - 4x + 3)$

Notes: 1.3

Example #1:

$$a^3 + b^3 = (a + b)(a^2 - ab + b^2)$$

same sign — opposite sign — always +

Factor: $x^6 + 8$

$(x^2)^3 + (2)^3 = (x^2+2)((x^2)^2 - (x^2)(2) + (2)^2)$

$= (x^2+2)(x^4 - 2x^2 + 4)$

Example:

Notes: 1.3

Multiply: $(3x-1)^2$ using the FOIL method.

$$= (3x-1)(3x-1)$$

$-3x$
$-3x$

$$= 9x^2 - 6x + 1$$

First
Outer
Inner
Last

OR…work backwards and factor using the FOIL method

$$9x^2 - 6x + 1 = (3x-1)(3x-1)$$

$-3x$
$-3x$

The online assignment is due tomorrow. You will need paper to solve many of the problems. Keep your written work so you have something to look at when studying for the unit test!

You get **5 attempts** per problem. The score gets automatically submitted as you answer each question. You can view the saved points at the top of your assignment.

You will earn full credit for attempting all problems and having an overall score of 70% or better.