

keep scrolling to
get a sneak peek!

Help your Algebra students practice **factoring out the greatest common factor** from polynomials. Students will be eager to get the self-checking benefits from this digital pixel art activity!

GCF FACTORING PIXEL ART

#	Question	Answer
1	$-6x + 54$	
2	$12x^3 + 16x^2$	
3	$-24x^3y^2 - 40x^4$	
4	$8x^2y - 10x^4y^2$	
5	$50x^4 - 25x^3 + 5x^2$	
6	$40n^2m^3 + 32nm^2 + 12n^3m$	
7	$48w^3 + 40w^4 + 40w^5$	
8	$-4xy^4 + 4x^2y^2 + 2y$	
9	$10u^5v^2 - 80u^6v^2 + 50u^6v^3$	
10	$30x^2y^4 + 6xy^4 + 24xy^3$	

Directions: Completely factor each polynomial. Use "" to show an exponent. Answer each question correctly and pixels will appear to reveal a picture!



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Self-Checking

Why do you need this?



It's self-checking! Your students will instantly know if they are correct or not.



Help your students practice this essential math skill.



Your students will be so engaged trying to figure out what the picture is!

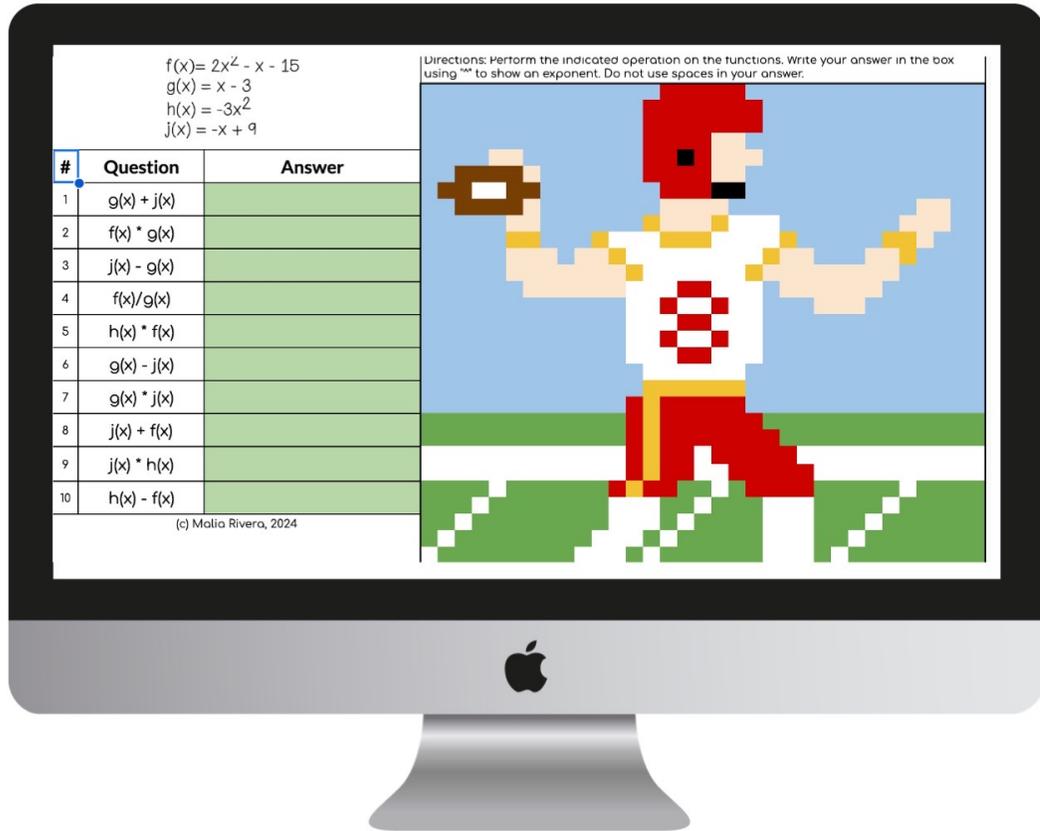
Factoring Out the GCF Pixel Art

The monitor displays a spreadsheet with the following content:

Question	Answer
$-6x + 54$	
$12x^3 + 16x^2$	
$-24x^3y^2 - 40x^4$	
$8x^2y - 10x^4y^2$	
$50x^4 - 25x^3 + 5x^2$	
$2m^3 + 32nm^2 + 12n^3m$	
$48w^3 + 40w^4 + 40w^5$	
$-4xy^4 + 4x^2y^2 + 2y$	
$u^5v^2 - 80u^6v^2 + 50u^6v^3$	
$10x^2y^4 + 6xy^4 + 24xy^3$	

Directions: Completely factor each polynomial. Use ** to show an exponent. Answer each question correctly and pixels will appear to reveal a picture!

Factoring Out the GCF Pixel Art includes:



The monitor displays a math worksheet with the following content:

$f(x) = 2x^2 - x - 15$
 $g(x) = x - 3$
 $h(x) = -3x^2$
 $j(x) = -x + 9$

Directions: Perform the indicated operation on the functions. Write your answer in the box using "" to show an exponent. Do not use spaces in your answer.

#	Question	Answer
1	$g(x) + j(x)$	
2	$f(x) * g(x)$	
3	$j(x) - g(x)$	
4	$f(x)/g(x)$	
5	$h(x) * f(x)$	
6	$g(x) - j(x)$	
7	$g(x) * j(x)$	
8	$j(x) + f(x)$	
9	$j(x) * h(x)$	
10	$h(x) - f(x)$	

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The pixel art character is a red rooster wearing a white shirt with a red cross, yellow pants, and a red skirt, holding a brown object.

- ✓ 10 self-checking problems
- ✓ an answer key
- ✓ a self-checking version
- ✓ an assessment version

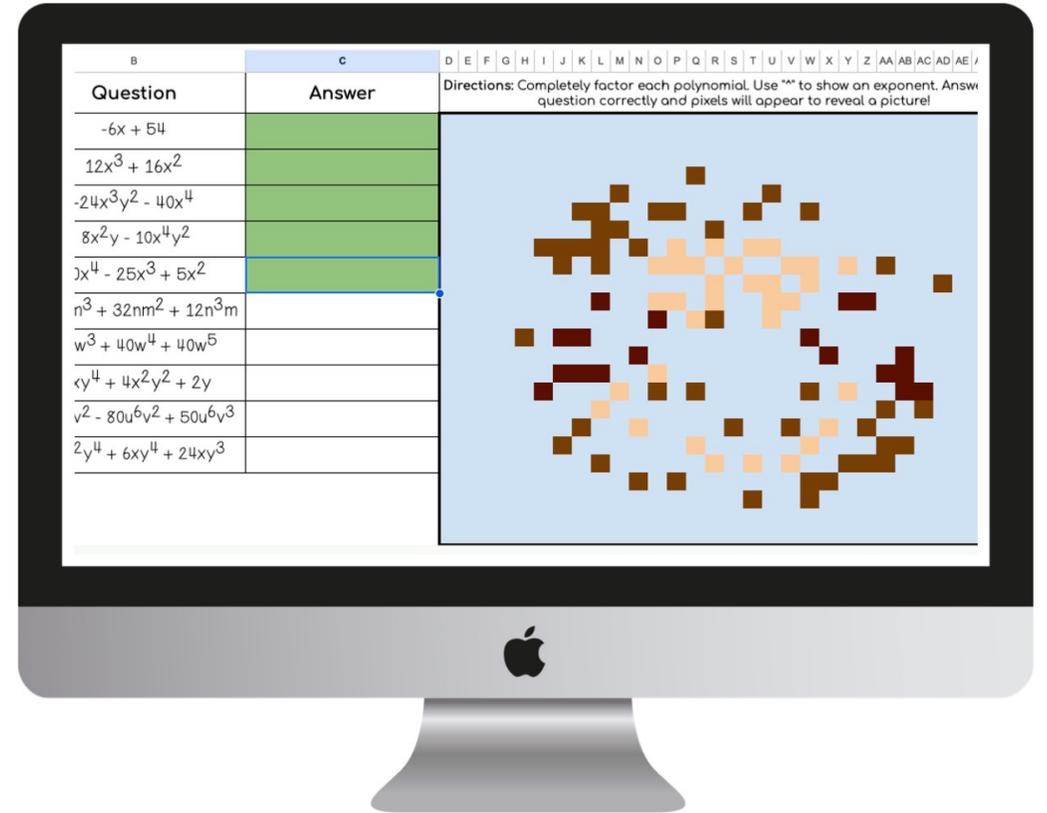
Factoring Out the GCF Pixel Art

standards covered:

CCSS: HSF-BF.A.1.b

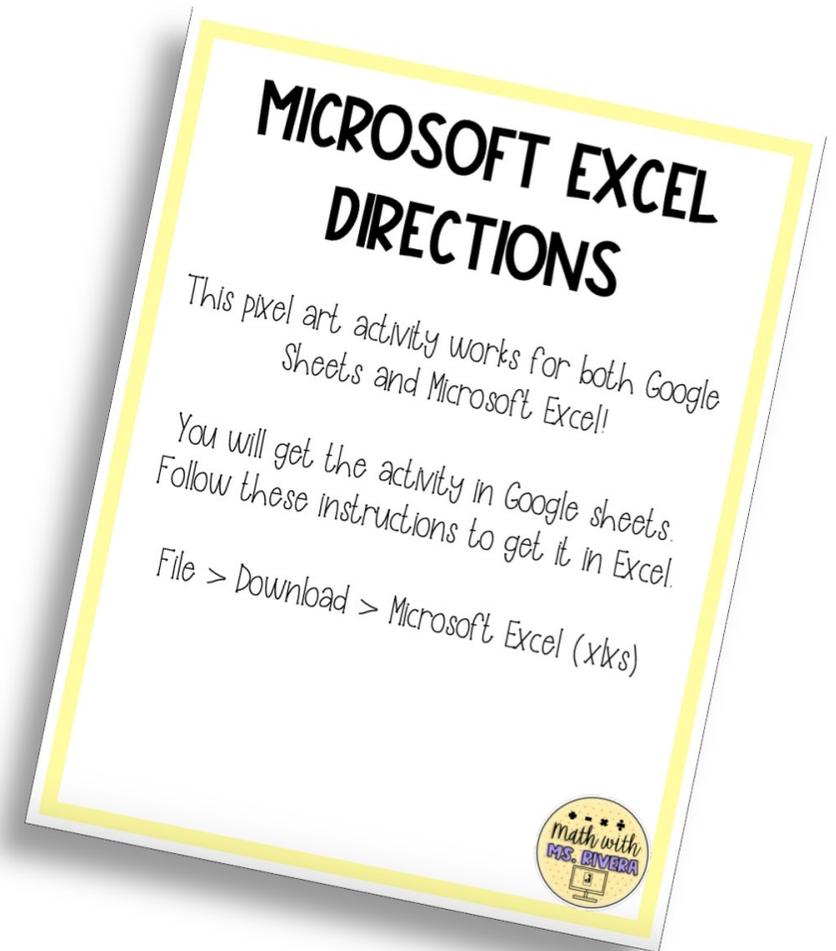
TEKs: A1.10.A, A1.10.B, A1.10.C

VA SOLs: EO.A.2.b



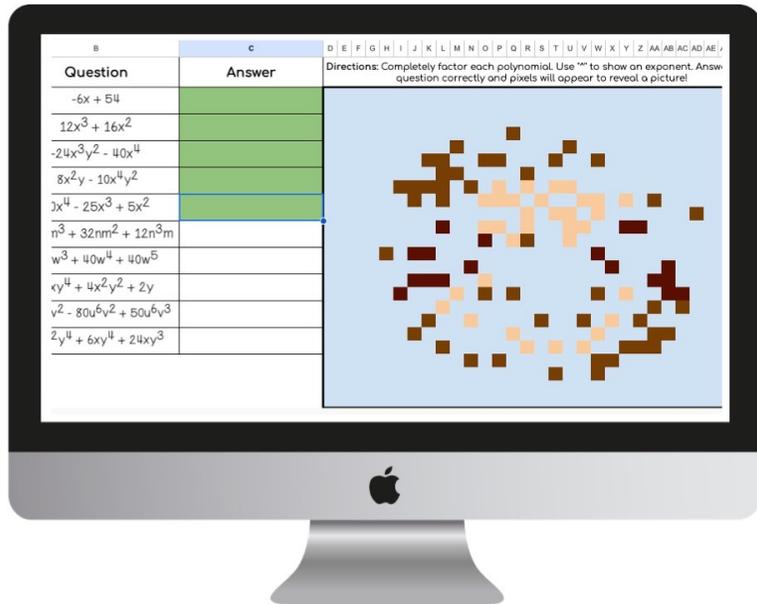
Factoring Out the GCF Pixel Art

Can be used with Google Sheets
and Microsoft Excel
Directions included!

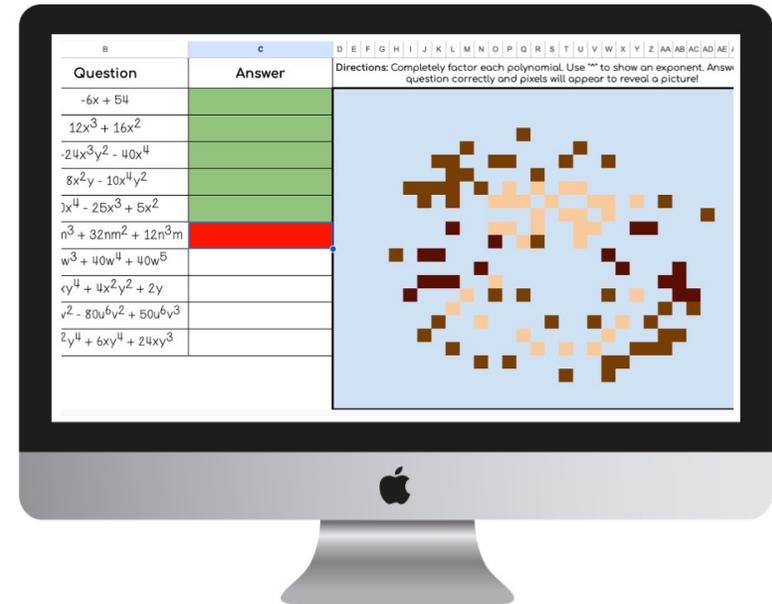


Factoring Out the GCF Pixel Art

If they answer it correctly, some of the pixels will appear.

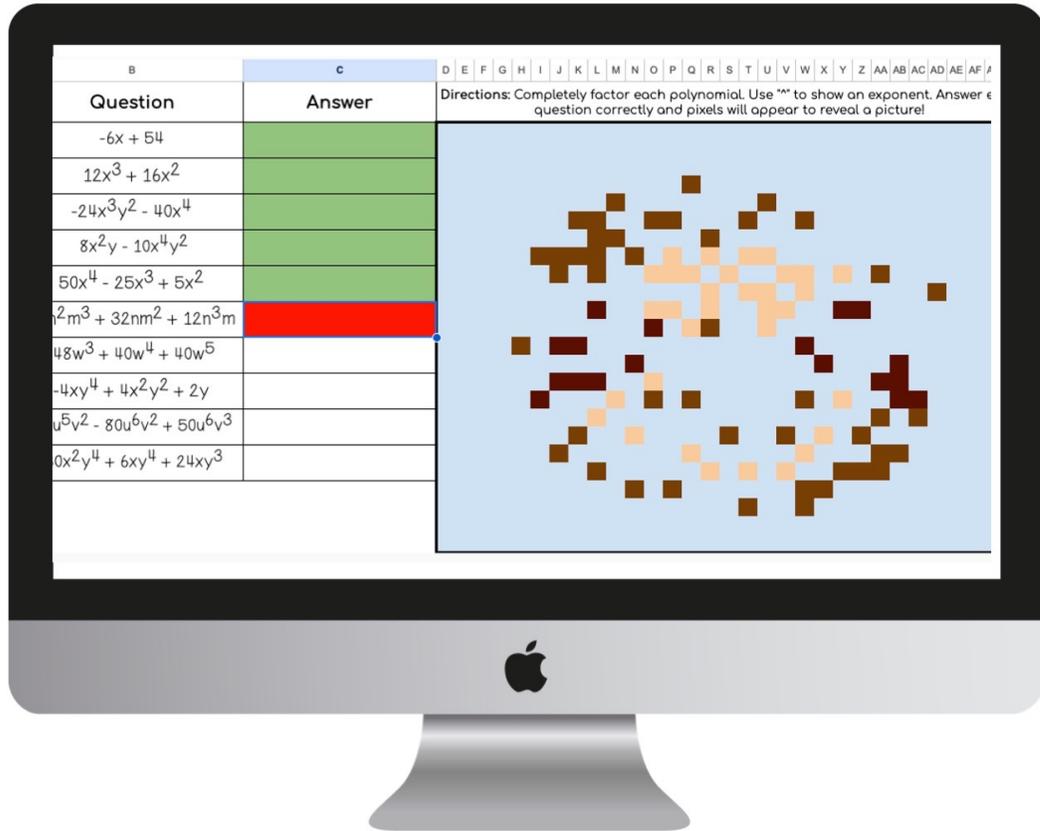


If they answer it incorrectly, the answer box will turn red & no pixels appear.



Your students will *love* trying to figure out what the picture is WHILE doing math!

how to use this resource



This is a great activity to use when reviewing how to find the greatest common factor and factor it out of polynomials.

It can be used right after teaching the concept or as homework.

This is also a **substitute-friendly** assignment!

You may also enjoy ...

FACTORING TRINOMIALS A > 1 PIXEL ART

#	Question	Answer
1	$9x^2 - 9x - 28$	
2	$5x^2 + 64x - 84$	
3	$8x^2 + 39x + 28$	
4	$4x^2 + x - 18$	
5	$10x^2 + 31x - 36$	
6	$6x^2 - x - 40$	
7	$4x^2 - 3x - 7$	
8	$2x^2 + 23x + 65$	
9	$10x^2 + 23x + 12$	
10	$3x^2 - 32x - 48$	
11	$6x^2 - 13x + 5$	
12	$8x^2 - 33x + 4$	
13	$11x^2 - 21x + 10$	
14	$6x^2 - 7x - 90$	
15	$7x^2 + 27x - 40$	

Directions: Answer each question correctly and pixels will appear to reveal a picture!



Self-Checking

FACTORING A IS NOT 1

Task cards

H Completely factor the trinomial.

$$10x^2 - 26x + 12$$

P Completely factor the trinomial.

$$8x^2 + 16x + 6$$

K Completely factor the trinomial.

$$-3x^2 - 17x - 10$$

B Completely factor the trinomial.

$$-x^2 + 8x -$$

FACTORING POLYNOMIALS BY GROUPING

COMPLETELY FACTOR EACH POLYNOMIAL. DRAG & DROP THE ANSWER PIECE TO THE CORRECT QUESTION.

$$14xy + 10x - 35yz - 25z$$

DRAG YOUR ANSWER PIECES HERE

$$8xy + 4x - 10y - 5$$

DRAG YOUR ANSWER PIECES HERE

$$4xy - 10x + 10yz - 25z$$

DRAG YOUR ANSWER PIECES HERE

$$(2y+5)$$

$$(7y-5)$$

$$(7y+5)$$

$$(2x-5z)$$

$$(4x-5)$$

$$(2y-1)$$

$$(2y-5)$$

$$(2y+1)$$

$$(4x+5)$$

$$(2x+5z)$$

Free Algebra Activities!

When you join my email list, I'll send you a free Algebra print & digital self-checking activities. There is an Algebra 1 and Algebra 2 version!

You'll also be getting exclusive freebies and content to help your Algebra students be successful this school year!

check it out!

The image shows a collage of algebra worksheets and a digital tablet. The worksheets include:

- Answer Key** for **ADDING & SUBTRACTING RATIONAL EXPRESSIONS** with handwritten solutions like $\frac{2x-8}{x^2-10}$.
- MULTIPLYING & DIVIDING RATIONAL EXPRESSIONS** with handwritten solutions like $\frac{x^2-x+3x-6}{(x-1)(x-2)}$.
- SOLVING SYSTEMS OF EQUATIONS** with handwritten solutions like $y=2+5$, $y=7$, and $(2, 7)$.

The digital tablet displays a self-checking activity titled **Rational Expression Operations - Addition & Subtraction**. The directions are: "Answer each question and type the question number with the matching answer in the answer column to the right." The activity consists of a table with 8 questions and 8 answers, with a path of colored lines connecting the questions to their correct answers.

#	Question	Answer	Type the matching question numbers here
1	$\frac{5}{x} + \frac{3}{x+1}$	$\frac{2x+1}{x+2}$	
2	$\frac{2}{x+4} - \frac{x^2}{x^2-16}$	$-\frac{1}{x^2-1}$	
3	$\frac{x+2}{x^2+4x+4} + \frac{2x}{x+2}$	$\frac{2x^2+2x+5}{x^2+x-2}$	
4	$\frac{x}{x-2} + \frac{3}{x-1}$	$-\frac{x^2+2x-8}{x^2-16}$	
5	$\frac{x}{4x+8} - \frac{1}{x^2+2x}$	$\frac{8x+5}{x^2+1}$	
6	$\frac{x+2}{x-1} + \frac{x-1}{x+2}$	$\frac{x^2-3x+7}{x^2-4}$	
7	$\frac{2x+1}{x^2-4} + \frac{x-3}{x+2}$	$\frac{x^2+2x-6}{x^2-3x+2}$	
8	$\frac{x^2+2x}{x^2-1} - \frac{x+1}{x-1}$	$\frac{x-2}{4x}$	

(c) Malia Rivera, 2024



hey there!

My name is Malia and I'm passionate about making learning and practicing math fun. I love creating engaging math resources for my students and I hope your students enjoy this activity too!

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