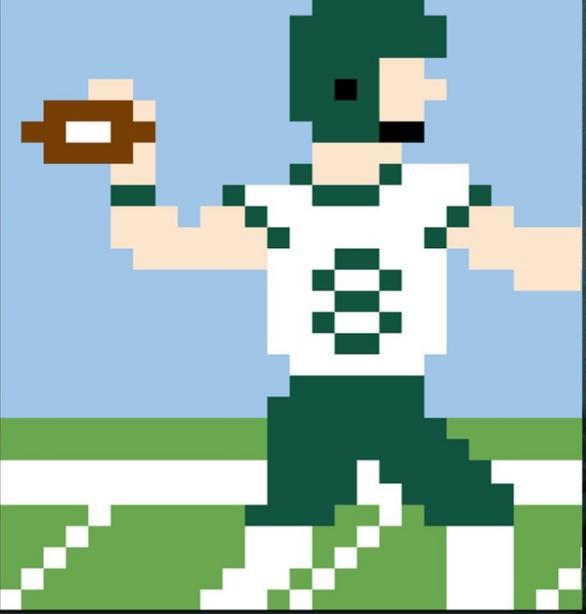*keep scrolling* to get a sneak peek!

Help your Algebra 2 students practice factoring polynomials by grouping and using the sum and difference of cubes pattern. Students will be eager to get the self-checking benefits from this digital pixel art activity!

FACTORING BY GROUPING & SUM/DIFFERENCE OF CUBES

Question	Answer
$x^3 - 2x^2 + 3x - 6$	
$4x^3 + 16x^2 - 3x - 12$	
$x^3 - 8$	
$5x^4 + 5x^3 + 6x^2 + 2x$	
$x^3 + 216$	
$125x^3 - 1$	
$6x^3 + 36x^2 + 2x + 12$	
$6x^3 + 48$	
$8x^3 - 27y^3$	
$27x^3 - 18x^2 - 12x + 8$	

(c) Malia Rivera, 2024

Directions: Completely factor each polynomial. Write your answer in the box an exponent, if necessary. Do not use spaces in your answer.

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Math with Ms. Rivera

Self-Checking

why do you need this?

Factoring by Grouping & Sum & Difference of Cubes Pixel Art

🖊️ It's self-checking! Your students will instantly know if they are correct or not.
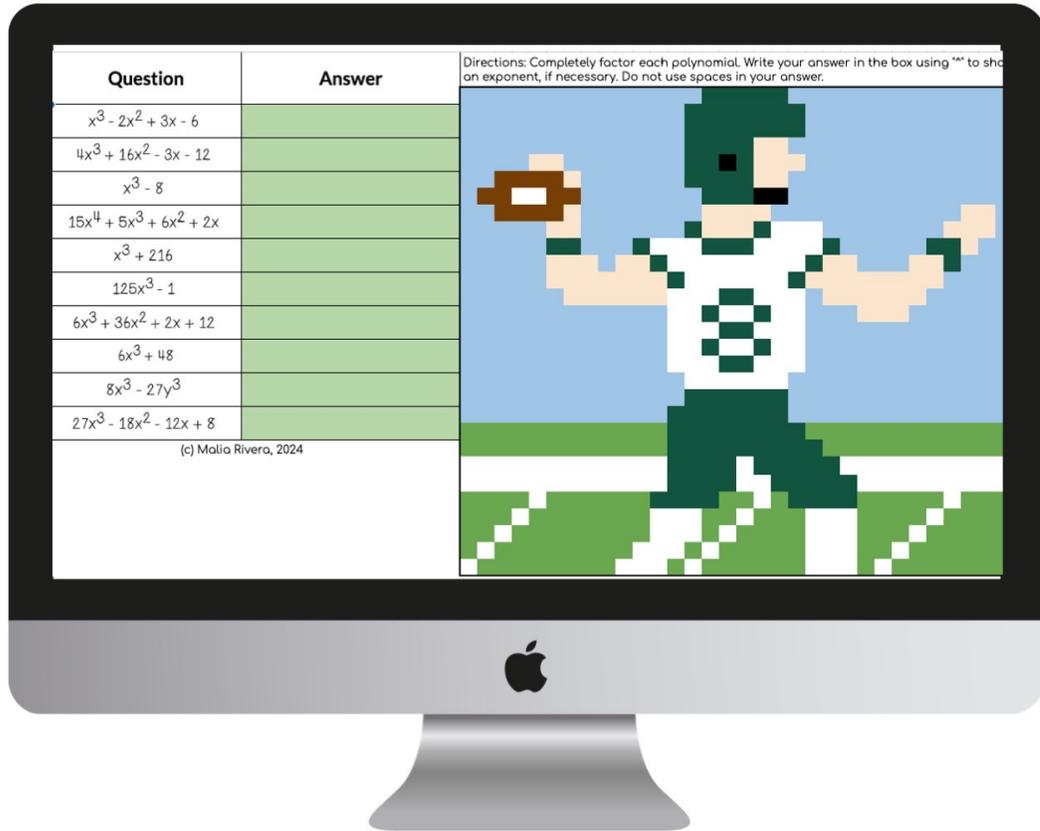
🖊️ Help your students practice this essential math skill.

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

Question	Answer
$x^3 - 2x^2 + 3x - 6$	
$4x^3 + 16x^2 - 3x - 12$	
$x^3 - 8$	
$15x^4 + 5x^3 + 6x^2 + 2x$	
$x^3 + 216$	
$125x^3 - 1$	
$6x^3 + 36x^2 + 2x + 12$	
$6x^3 + 48$	
$8x^3 - 27y^3$	
$27x^3 - 18x^2 - 12x + 8$	

Directions: Completely factor each polynomial. Write your answer in the box using "^" to sho an exponent, if necessary. Do not use spaces in your answer.

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Factoring Polynomials Pixel Art *includes:*

Question	Answer
$x^3 - 2x^2 + 3x - 6$	
$4x^3 + 16x^2 - 3x - 12$	
$x^3 - 8$	
$15x^4 + 5x^3 + 6x^2 + 2x$	
$x^3 + 216$	
$125x^3 - 1$	
$6x^3 + 36x^2 + 2x + 12$	
$6x^3 + 48$	
$8x^3 - 27y^3$	
$27x^3 - 18x^2 - 12x + 8$	

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Directions: Completely factor each polynomial. Write your answer in the box using "^" to sho an exponent, if necessary. Do not use spaces in your answer.

✅ 10 self-checking problems

✅ an answer key

✅ a self-checking version

✅ an assessment version

Factoring Polynomials Pixel Art
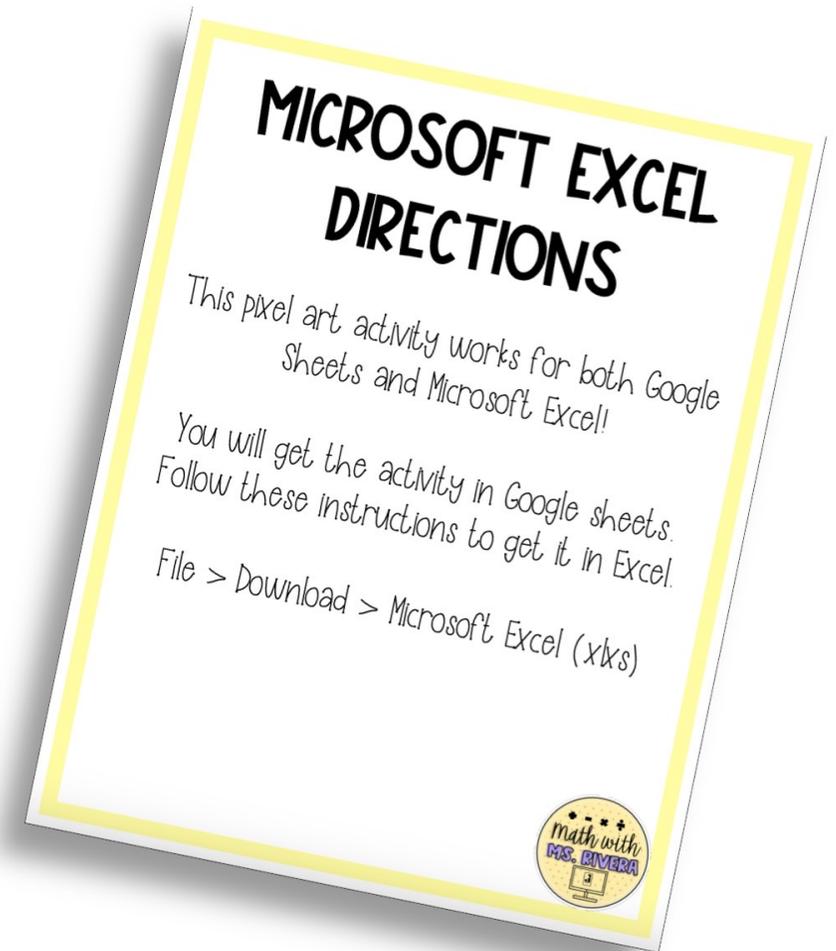
standards covered:

CCSS: HSA-APR.B.3

TEKs: A2.7.D, A2.7.E

VA SOLs: EO.AII.1.c

Question	Answer
$x^3 - 2x^2 + 3x - 6$	
$4x^3 + 16x^2 - 3x - 12$	
$x^3 - 8$	
$5x^4 + 5x^3 + 6x^2 + 2x$	
$x^3 + 216$	
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$6x^3 + 48$	
$8x^3 - 27y^3$	
$27x^3 - 18x^2 - 12x + 8$	

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Directions: Completely factor each polynomial. Write your answer in the box using "^" to an exponent, if necessary. Do not use spaces in your answer.
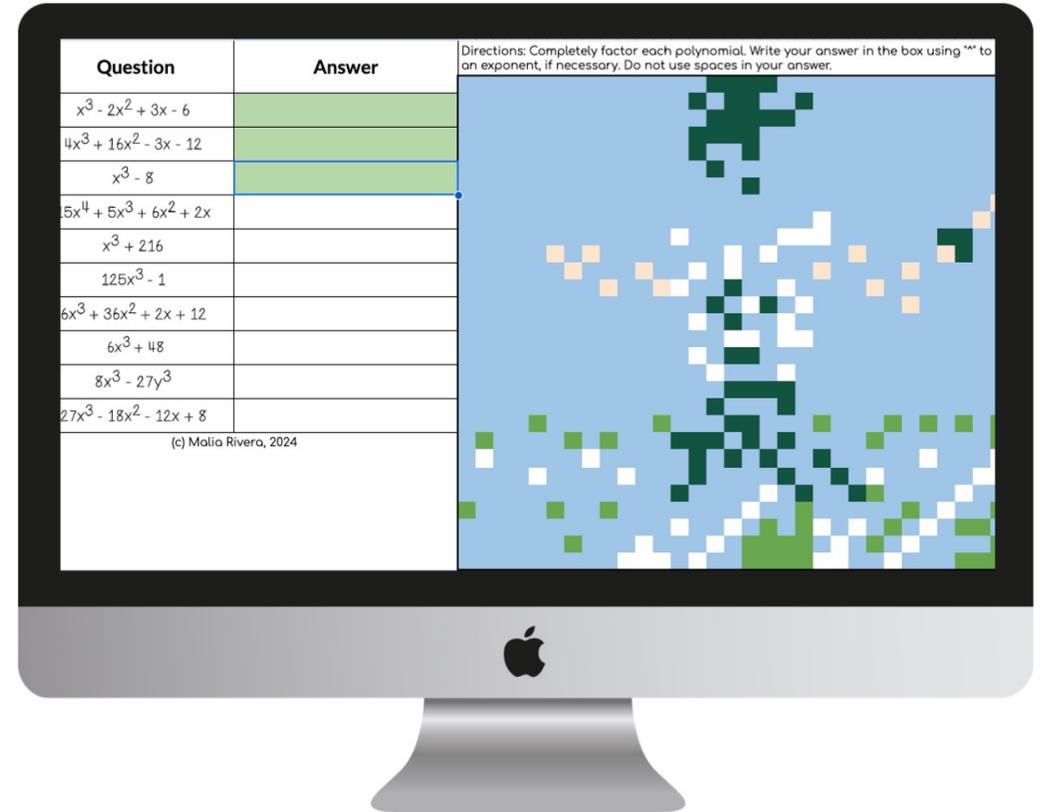
Factoring Polynomials Pixel Art

Can be used with Google Sheets
and Microsoft Excel

Directions included!

MICROSOFT EXCEL DIRECTIONS

This pixel art activity works for both Google Sheets and Microsoft Excel!

You will get the activity in Google sheets. Follow these instructions to get it in Excel.

File > Download > Microsoft Excel (xlxs)

math with
MS. RIVERA

Factoring Polynomials Pixel Art

If they answer it correctly, some of the pixels will appear.
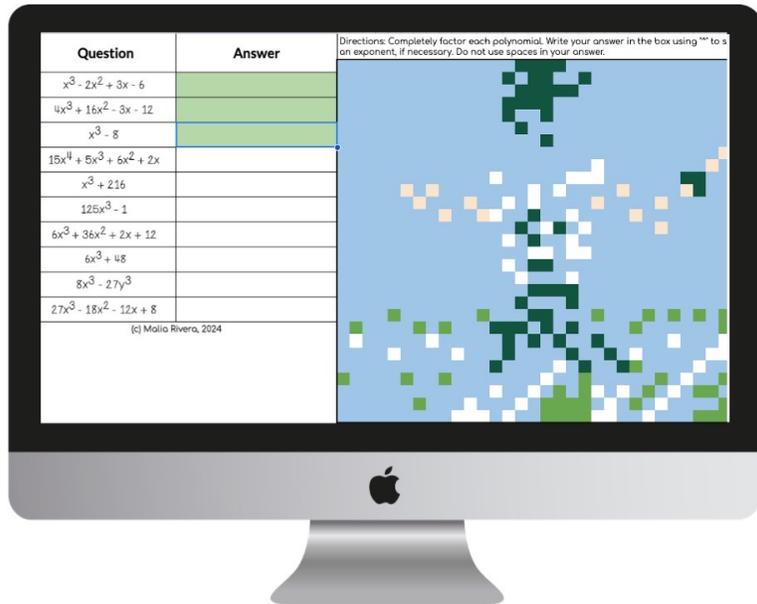
If they answer it incorrectly, the answer box will turn red & no pixels appear.
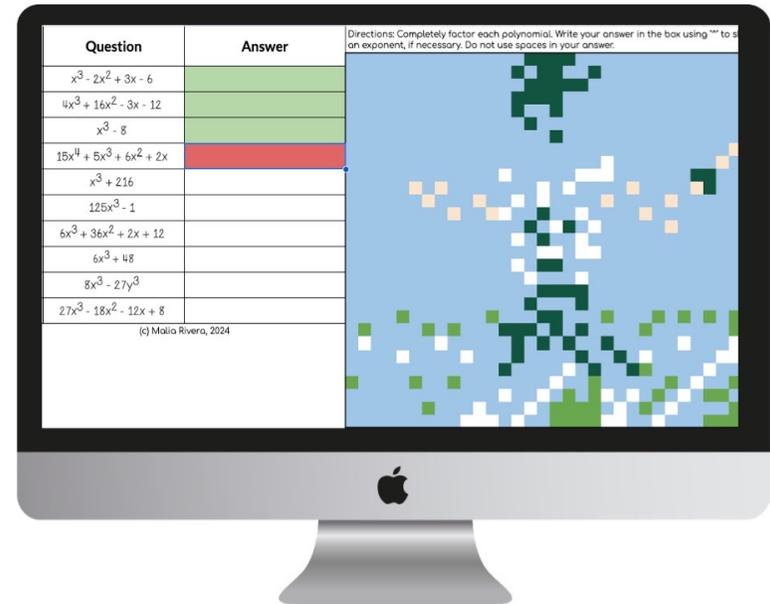
Your students will *love* tying to figure out what the picture is WHILE doing math!

how to use this resource

Question	Answer	Directions: Completely factor each polynomial. Write your answer in the box using "^" to show an exponent, if necessary. Do not use spaces in your answer.
$x^3 - 2x^2 + 3x - 6$		
$4x^3 + 16x^2 - 3x - 12$		
$x^3 - 8$		
$15x^4 + 5x^3 + 6x^2 + 2x$		
$x^3 + 216$		
$125x^3 - 1$		
$6x^3 + 36x^2 + 2x + 12$		
$6x^3 + 48$		
$8x^3 - 27y^3$		
$27x^3 - 18x^2 - 12x + 8$		

(c) Malia Rivera, 2024
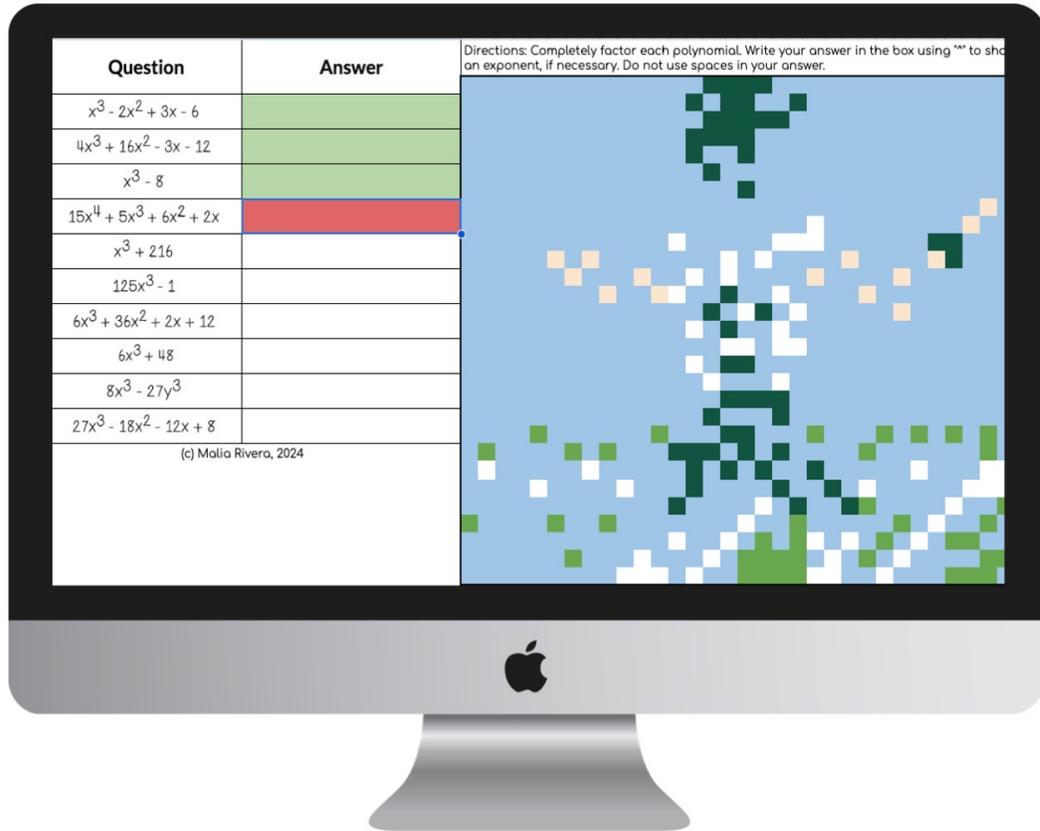
This is a great activity to use when reviewing how **factor polynomials using the grouping & sum and difference of cubes methods**.

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

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

You may also enjoy...

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

$(2y+5)$ $(7y-5)$ $(7y+5)$ $(2x-5z)$ $(4x-5)$ $(2y-1)$ $(2y-5)$ $(2y+1)$ $(4x+5)$ $(2x+5z)$

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FACTORING POLYNOMIALS
Algebra 2 Guided Notes

Answer key included

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POLYNOMIAL FUNCTIONS
Algebra 2 Guided Notes

Answer key included

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hey there!

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