

keep scrolling to get  
a sneak peek!

Help your Algebra 1 students  
**solving algebraic  
proportion equations** with  
this task card activity! Your  
students are going to love  
this football themed, self-  
checking activity!

# SOLVING ALGEBRAIC PROPORTIONS

12 Task Cards

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**ANSWER KEY**

Directions: Solve each algebraic proportion using cross products. Show your work in the space below.

#1  $\frac{7}{3} = \frac{2x+5}{x}$   
 $7x = 3(2x+5)$   
 $7x = 6x + 15$   
 $-6x -6x$   
 $x = 15$

#2  $\frac{x}{9x-2} = \frac{1}{8}$   
 $8x = 9x - 2$   
 $-9x -9x$   
 $-x = -2$   
 $-1$   
 $x = 2$

#4  $\frac{x-8}{-2} = \frac{4x+4}{4}$   
 $4x - 32 = -8x - 8$   
 $+8x +8x$   
 $12x - 32 = -8$   
 $+32 +32$   
 $12x = 24$   
 $12$   
 $x = 2$

#5  $5(x-8) = -(7+x)$   
 $5x - 40 = -7 - x$   
 $+x +x$   
 $6x - 40 = -7$   
 $+40 +40$   
 $6x = 33$   
 $6$   
 $x = 5.5$

#8  $\frac{6}{4+2x} = \frac{1}{x}$

#12  $\frac{16.5+3x}{3} = \frac{0.9-x}{-5}$

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Answers printed on the back!

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Why do you need this?



Task cards are an effective, low-prep way to create engaging and interactive learning experience



Task cards are very versatile because they cater to a wide range of student needs

# Algebraic Proportions Task Cards

Name: \_\_\_\_\_ Date: \_\_\_\_\_

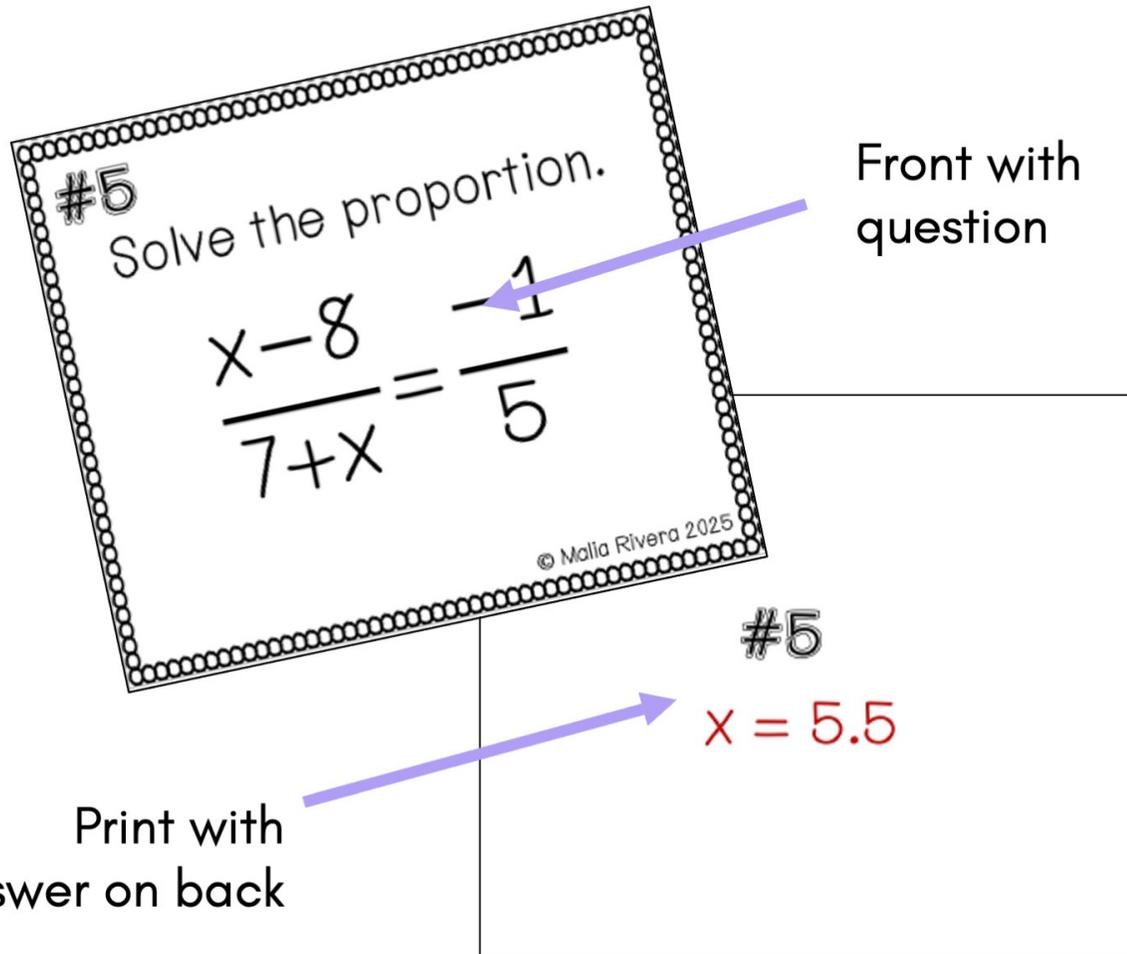
**SOLVING ALGEBRAIC PROPORTIONS TASK CARD RECORDING SHEET**  
Directions: Solve each algebraic proportion using cross products. Show your work in the boxes below.

#1	#2	#3
#4	#5	#6
#7	#8	#9
#10	#11	#12

**#10**  
Solve the proportion.  
$$\frac{-3}{11} = \frac{5-x}{x+1.4}$$
  
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**#12**  
Solve the proportion.  
$$\frac{16.5+3x}{3} = \frac{0.9-x}{-5}$$
  
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# Solving Algebraic Proportions Task Cards *includes:*



- ✓ set of 12 task cards
- ✓ a recording sheet for students to show their work
- ✓ a detailed answer key
- ✓ Printing tips to print the answers on the back of the corresponding question cards

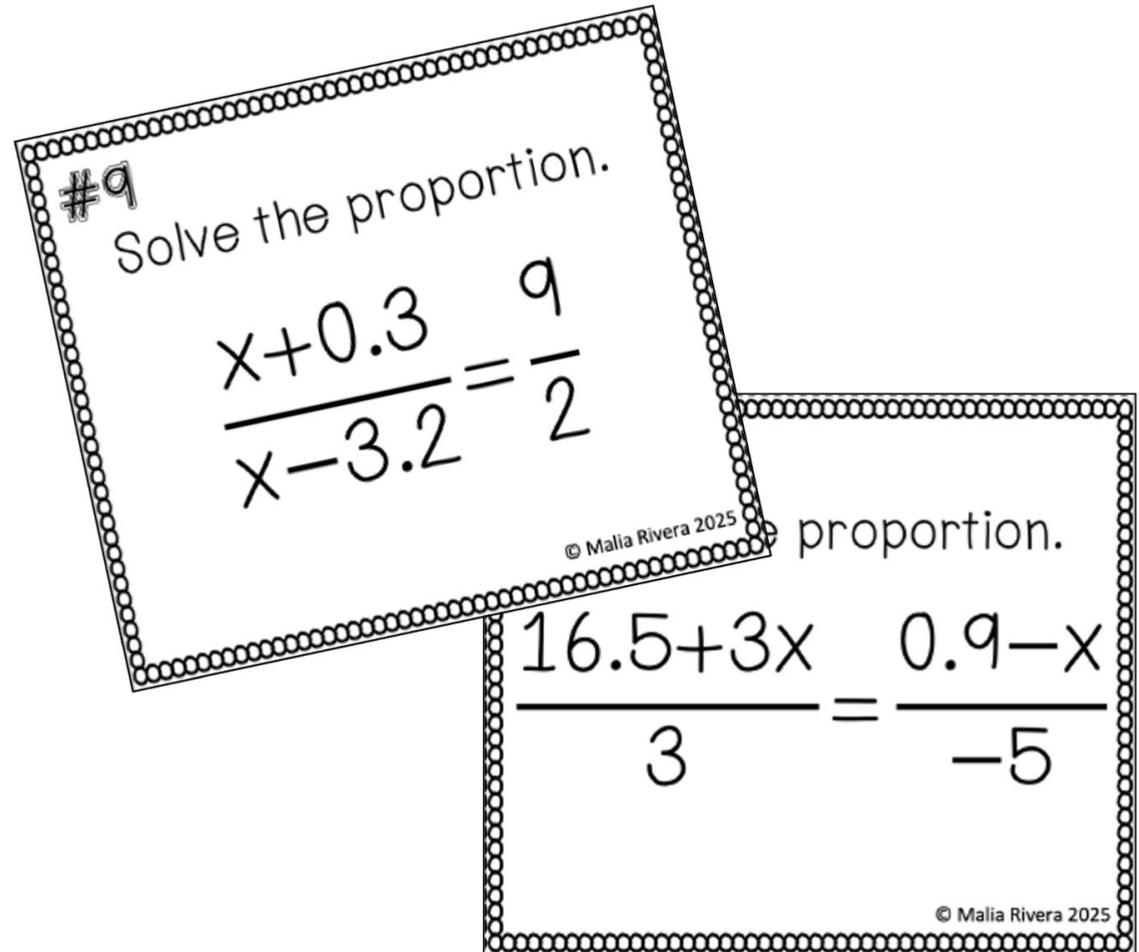
# Solving Algebraic Proportions Task Cards

standards covered:

**CCSS:** HSA-REI.B.3

**TEKs:** A1.5.a

**VA SOLs:** EI.A.4.a



# how to use this resource

Name: **ANSWER KEY** Date: \_\_\_\_\_

**SOLVING ALGEBRAIC PROPORTIONS TASK CARD RECORDING SHEET**  
Directions: Solve each algebraic proportion using cross products. Show your work in the boxes below.

#1 $\frac{7}{3} = \frac{2x+5}{x}$ $7x = 3(2x+5)$ $7x = 6x + 15$ $-6x \quad -6x$ $x = 15$	#2 $\frac{x}{9x-2} = \frac{1}{8}$ $8x = 9x - 2$ $-9x \quad -9x$ $-x = -2$ $-1$ $x = 2$	#3 $\frac{24}{5x+4} = \frac{4}{x-1}$ $24(x-1) = 4(5x+4)$ $24x - 24 = 20x + 16$ $-20x \quad -20x$ $4x - 24 = 16$ $+24 \quad +24$ $4x = 40$ $4$ $x = 10$
#4 $\frac{x-8}{-2} = \frac{4x+4}{4}$ $4x - 32 = -2(4x+4)$ $4x - 32 = -8x - 8$ $+8x \quad +8x$ $12x - 32 = -8$ $+32 \quad +32$ $12x = 24$ $12$ $x = 2$	#5 $\frac{5}{-7-x} = \frac{-7+x}{3}$ $5(3) = (-7-x)(-7+x)$ $15 = 49 - x^2$ $x^2 - 49 = 0$ $(x+7)(x-7) = 0$ $x = -7$ $x = 7$	#6 $2(x+4) = -3(5-x)$ $2x + 8 = -15 + 3x$ $-2x \quad -2x$ $8 = -15 + x$ $+15 \quad +15$ $23 = x$ $x = 23$
#7 $\frac{4x}{1x} = \frac{4+2x}{3}$ $12x = 4 + 2x$ $-2x \quad -2x$ $10x = 4$ $10$ $x = \frac{4}{10}$ $x = \frac{2}{5}$	#8 $\frac{2(x+0.3)}{2x+0.6} = \frac{9(x-3.2)}{9x-28.8}$ $2(x+0.3) = 9(x-3.2)$ $2x + 0.6 = 9x - 28.8$ $-9x \quad -9x$ $-7x + 0.6 = -28.8$ $-0.6 \quad -0.6$ $-7x = -29.4$ $-1$ $x = 4.2$	#9 $\frac{(4+2x)}{4x} = \frac{1x}{1x}$ $4x(1x) = (4+2x)(1x)$ $4x^2 = 4x + 2x^2$ $-2x^2 \quad -2x^2$ $2x^2 = 4x$ $-4x \quad -4x$ $2x^2 - 4x = 0$ $2x(x-2) = 0$ $x = 0$ $x = 2$

## TIPS FOR USE

When printing this set of task cards, be sure to select "short-edged binding" when printing on both sides. This will allow the answers to be printing on the back of the corresponding card.

After printing, I highly recommend laminating the task cards to the so they can be used in the future.

#2  
Solve the proportion.

$$\frac{x}{9x-2} = \frac{1}{8}$$

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This is a great individual practice activity to use when reviewing how to solve algebraic proportion equations.

You can also use this in small groups, match centers, or as a scavenger hunt.

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

You may also enjoy ...

## ALGEBRAIC PROPORTIONS

Digital & Print Activity Pack

3 Activities

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Algebraic Proportions Choice #8 Solve the proportion.  $\frac{6}{4+2x} = x$

#5 Solve the proportion  $\frac{x-8}{7+x} = \frac{-1}{5}$

#1 Solve the prop  $\frac{7}{3} = \frac{2x+}{x}$

Question Answer

1	$\frac{10}{2} = \frac{x-5}{7}$	
2	$\frac{8}{x-2} = \frac{4}{x}$	
3	$\frac{x+5}{9} = \frac{8}{3}$	
4	$\frac{8}{x-2} = \frac{6}{x}$	
5	$\frac{x+8}{2} = \frac{5x}{5}$	
6	$\frac{x+3}{7} = \frac{x}{2}$	

## SOLVING MULTISTEP EQUATIONS

Color by Number Worksheet

ANSWER KEY INCLUDED

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SOLVING MULTISTEP EQUATIONS COLOR BY NUMBER

Directions: Solve the equation. Don't forget to show your work! Circle the answer from the choices. Your answers will determine how you color the grid.

$x+13=3x-11$	$2x-7=3x+2$
$x=6$ yellow	$x=0$ dark blue
$x=-4$ light brown	$x=-2$ orange
$x=-1$ red	$x=13$ green
$x=5$ blue	$x=5$ pink
$x=-2$ dark brown	$x=5$ pink
$x=5=4x-7$	

## SOLVING MULTISTEP EQUATIONS WITH VARIABLES ON BOTH SIDES

Digital & Print Activity Pack

12 Activities

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SOLVING MULTI-STEP EQUATIONS

Directions: Solve each equation. Show all work and check your answer.

#1  $8x+5=6x+1$

#2  $x-1=-5$

#4  $5h-7=2(h+1)$

#15  $3+4(y+5)=$

#20  $6(2m+10)=5(m+5)$

Question Answer

1	$5(3x-6)=160$	
2	$-10x=4p-d+8p$	
3	$n-3=9n=27+4n$	
4	$2p+1=2p+25+4n-3n$	
5	$40+7m=7(2+d+m)$	
6	$7m-3k=2025k-2k-1$	

# 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** and **SOLVING SYSTEMS OF EQUATIONS**.
- MULTIPLYING & DIVIDING RATIONAL EXPRESSIONS** worksheet with problems like  $2. \frac{x}{x+4} \cdot \frac{x^2}{x^2-16}$ .
- SOLVING SYSTEMS OF EQUATIONS** worksheet with problems like  $2. 2x - 6y = -18$  and  $x = 3y - 4$ .

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

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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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