

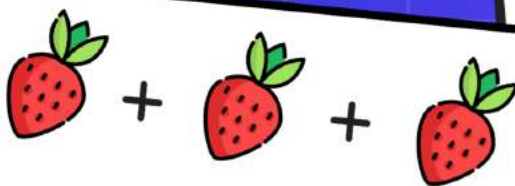
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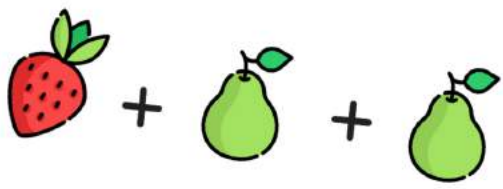
**21 Super Fun**


# **MATH PUZZLES**

**for Engaging Your Kids!**




**Grades K-8**








$$+ + = 15$$


$$+ + = 13$$


$$- = 6$$


$$+ + = ?$$



		
8		24
		144





## ***Welcome to Mashup Math!***

Thank you for joining our mailing list and for downloading this free PDF miniature math workbook for students in grades K-8!

You're probably here because you know that the key to getting your kids excited about practicing and learning math is to make the materials fun and engaging.

On the following pages, you will find 21 math puzzles (plus a few bonus activities!) that you can use to inject some fun into your upcoming math lessons both in the classroom and at home. The puzzles and challenges are super fun to solve and are an excellent way to get your kids thinking and problem-solving creatively and mathematically (and even algebraically, way before they ever step foot inside of an algebra class!).

So, go ahead and share these puzzles with your kids and find out why more and more teachers rely on Mashup Math to make their lessons fun and engaging all year long!

Enjoy!



Anthony Persico :)  
Founder, Mashup Math

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# **Part I: Grades K-3**

- Single and Double-Digit Addition and Subtraction
- Elementary Operations
- One and Two-Step Problem Solving

## ***Helpful Hint:***

Symbols represent numbers.

### Example A

If  $2 + \text{star} = 9$ ,

then  $\text{star} = 7$

### Example B

If  $\text{rabbit} + \text{rabbit} = 8$ ,

then  $\text{rabbit} = 4$

## Part I: Puzzle #1 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below.

$$\text{Heart} + \text{Heart} = 2$$

$$\text{Diamond} + \text{Heart} = 4$$

$$\text{Lightning Bolt} + \text{Diamond} = 7$$

$$\text{Lightning Bolt} + \text{Heart} = ?$$

? = \_\_\_\_\_

## Part I: Puzzle #2 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below.

$$\text{Green Monster} + \text{Green Monster} = 10$$

$$\text{Green Monster} + \text{Red Monster} = 6$$

$$\text{Blue Monster} + \text{Red Monster} = 3$$

$$\text{Green Monster} + \text{Blue Monster} = ?$$

**? =** \_\_\_\_\_



## Part I: Puzzle #3 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below.

$$\text{Sun} + \text{Sun} + \text{Sun} = 6$$

$$\text{Ladybug} + \text{Sun} = 7$$

$$\text{Acorn} + 2 = \text{Ladybug}$$

$$\text{Sun} + \text{Ladybug} + \text{Acorn} = ?$$

? = \_\_\_\_\_

## Part I: Puzzle #4 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below.

$$\text{Soda Can} + \text{Soda Can} = 16$$

$$\text{Soda Can} + \text{Bowling Pin and Ball} + \text{Bowling Pin and Ball} = 20$$

$$\text{TV} = 15 - \text{Bowling Pin and Ball}$$

$$\text{Soda Can} + \text{TV} + \text{Bowling Pin and Ball} = ?$$

? = \_\_\_\_\_



## Part I: Puzzle #5 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below.

$$\text{Strawberry} + \text{Strawberry} + \text{Strawberry} = 15$$

$$\text{Strawberry} + \text{Pear} + \text{Pear} = 13$$

$$\text{Orange} - \text{Pear} = 6$$

$$\text{Strawberry} + \text{Pear} + \text{Orange} = ?$$

**? =** \_\_\_\_\_

## Part I: Puzzle #6 of 7

TWO TRUTHS + ONE LIE !

**Directions:** Use your math skills to determine which of the three statements below is not true! Explain how you made your decision.

$$\begin{array}{ccc} \text{Fairy} = 5 & \text{Cat} = 10 & \text{Mummy} = 100 \end{array}$$

A) 

									
---	---	---	---	---	---	---	---	---	--

 = 100

B) 

									
---	---	---	---	---	---	---	--	--	--

 = 700

C) 

									
---	---	---	---	---	---	---	--	--	--

 = 40


I believe that \_\_\_\_\_ is not true because...

## Part I: Puzzle #7 of 7


TWO TRUTHS + ONE LIE !


**Directions:** Use your math skills to determine which of the three statements below is not true! Explain how you made your decision.

(1) 

	6
---	---

  
24

 = 18

(2) 


	18	
--	----	--


  
30


 = 12

(3) 

26	
----	---

  
50

 = 24

I believe that \_\_\_\_\_ is not true because...

# ***Part II: Grades 4-6***



- Mixed Operations: Addition, Subtraction, Multiplication, and Division
- Two-Step Problem Solving and Substitution
- Intermediate Order of Operations
- Elementary Algebraic Thinking

## ***Helpful Hint:***

Multiple symbols can have the same value.

### Example

If  = 

and  +  = 6,

then  &  both equal 3.

## Part II: Puzzle #1 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below.

$$\text{Cake} + \text{Cake} + \text{Sandwich} = 36$$

$$\text{Cake} = \text{Sandwich}$$

$$\text{Cake} + \text{Cotton Candy} + \text{Cotton Candy} = 28$$

$$\text{Cotton Candy} - \text{Cupcake} = 3$$

$$\text{Cupcake} + \text{Cake} + \text{Cotton Candy} = ?$$

? = \_\_\_\_\_

## Part II: Puzzle #2 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below.

$$\text{Coffee Bean} \times \text{Milk Carton} = 90$$

$$11 \times \text{Coffee Bean} = 110$$

$$\text{Coffee Maker} = 14 - \text{Milk Carton}$$

$$\text{Coffee Beans} - \text{Coffee Maker} = 7$$

$$\text{Coffee Maker} \times \text{Coffee Beans} + \text{Milk Carton} = ?$$

? = \_\_\_\_\_



## Part II: Puzzle #3 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$\text{Spray Bottle} = 9 - 6 + 1$$

$$\text{Store} = \text{Scissors} + \text{Scissors}$$

$$\text{Jar} = \text{Store} - 3$$

$$10 + \text{Spray Bottle} = \text{Store}$$

$$\text{Jar} + \text{Scissors} - \text{Spray Bottle} = ?$$

? = \_\_\_\_\_

## Part II: Puzzle #4 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$36 = \text{Green Robot} + \text{Green Robot} + \text{White Robot}$$

$$\text{White Robot} + \text{White Robot} = \text{Blue Robot}$$

$$\text{Yellow Robot} = \text{Blue Robot} - 17$$

$$\text{Green Robot} = \text{White Robot}$$

$$\text{Yellow Robot} + \text{Green Robot} + \text{White Robot} + \text{Blue Robot} = ?$$

? = \_\_\_\_\_

## Part II: Puzzle #5 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$\text{Unicorn} + \text{Wizard} + \text{Unicorn} = \text{Cauldron}$$

$$35 \div \text{Wolf} = 7$$

$$\text{Wizard} = \text{Unicorn}$$

$$\text{Wolf} \times \text{Wolf} = \text{Wizard}$$

$$\text{Unicorn} + \text{Wizard} + \text{Cauldron} - \text{Wolf} = ?$$

? = \_\_\_\_\_

## Part II: Puzzle #6 of 7

### TWO TRUTHS + ONE LIE!

**Directions:** Use your math skills to determine which of the three statements below is not true! Explain how you made your decision.

$$\begin{array}{ccc} \text{taco} = 2 & \text{coffee} = 5 & \text{ice cream} = 0 \end{array}$$

1  $\text{taco} \times \text{coffee} = 8 + \text{taco}$

2  $\text{ice cream} = \text{ice cream} \times \text{ice cream}$

3  $\text{coffee} - \text{taco} \times \text{ice cream} = \text{ice cream}$

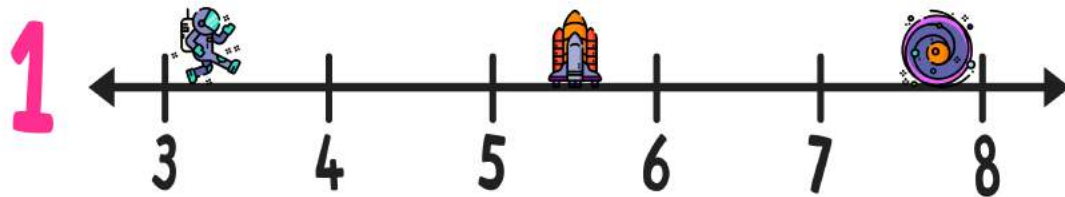
I believe that \_\_\_\_\_ is not true because...

## Part II: Puzzle #7 of 7




TWO TRUTHS + ONE LIE !

**Directions:** Use your math skills to determine which of the three statements below is not true! Explain how you made your decision.


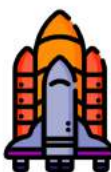
 =  $3\frac{7}{8}$      =  $5\frac{1}{2}$      =  $7\frac{5}{6}$



2

 +  > 

3

$2\frac{1}{3} =$   - 

I believe that \_\_\_\_\_ is not true because...



# **Part III: Grades 7-8+**

- Multi-Step Problem Solving and Substitution
- Advanced Order of Operations
- Intermediate Algebraic Thinking

## ***Helpful Hint:***

Remember to follow the Order of Operations

if  = 8     = 4     = 2

### Example A

**Perform multiplication/division before addition/subtraction.**

$$\begin{array}{r} \text{stapler} - \underbrace{\text{lamp} \times \text{tape}} \\ \text{stapler} - 2 \times 4 \\ 8 - 8 = 0 \end{array}$$

### Example B

**Perform multiplication/division and subtraction/division from left to right.**

$$\begin{array}{r} \underbrace{\text{stapler} \div \text{tape}} \times \text{lamp} \\ 8 \div 4 \times \text{lamp} \\ 2 \times 2 = 4 \end{array}$$



### Part III: Puzzle #1 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$3 \times \text{skate} = \text{person}$$

$$\text{helmet} = \text{quad} - 0$$

$$\text{skate} = 66 \div \text{helmet}$$

$$\text{helmet} + \text{quad} + \text{helmet} = 18$$

$$\text{person} + \text{quad} - \text{skate} = ?$$

**? =** \_\_\_\_\_

### Part III: Puzzle #2 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$\begin{array}{c} \text{Sun} \\ \text{Pyramids} \end{array} + \begin{array}{c} \text{Sun} \\ \text{Pyramids} \end{array} - \begin{array}{c} \text{Snake} \\ \text{Boat} \end{array} = 10$$

$$\begin{array}{c} \text{Sun} \\ \text{Pyramids} \end{array} + \begin{array}{c} \text{Snake} \\ \text{Boat} \end{array} + \begin{array}{c} \text{Magic Lamp} \end{array} = 21$$

$$\begin{array}{c} \text{Sun} \\ \text{Pyramids} \end{array} \times 4 = 32$$

$$\begin{array}{c} \text{Map} \end{array} \div \begin{array}{c} \text{Magic Lamp} \end{array} = 2$$

$$\begin{array}{c} \text{Sun} \\ \text{Pyramids} \end{array} + \begin{array}{c} \text{Map} \end{array} - \begin{array}{c} \text{Snake} \\ \text{Boat} \end{array} = ?$$

? = \_\_\_\_\_

### Part III: Puzzle #3 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$\text{Cake} \times \text{Pudding} = \text{Cupcake}$$

$$\text{Macarons} - \text{Cupcake} = 8$$

$$\text{Pudding} = \text{Cupcake}$$

$$20 \times 5 = \text{Macarons} \times \text{Macarons}$$

$$\text{Macarons} - \text{Cake} \times \text{Cupcake} = ?$$

? = \_\_\_\_\_

### Part III: Puzzle #4 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$\text{Minifigure 1} + 3 + \text{Minifigure 2} = 99$$

$$13 \times \text{Minifigure 3} = \text{Minifigure 4}$$

$$\text{Minifigure 4} - \text{Minifigure 2} = 132 \div 4$$

$$68 \div \text{Minifigure 3} = 17$$

$$\text{Minifigure 1} - \text{Minifigure 2} \times \text{Minifigure 3} = ?$$

? = \_\_\_\_\_

### Part III: Puzzle #5 of 7

**Directions:** Use your math skills to find the value of each symbol and the ? in the puzzle below

$$\star \times \text{⚡} + \text{🧪} = 99$$

$$3 + \star \times \text{⚡} = 52$$

$$350 \div \text{🧪} = 7$$

$$21 = \text{💎} \times \star$$

$$\star + \text{💎} \times \text{🧪} - \text{⚡} = ?$$

**? =** \_\_\_\_\_








## Part III: Puzzle #6 of 7

TWO TRUTHS + ONE LIE!

**Directions:** Use your math skills to determine which of the three statements below is not true! Explain how you made your decision.

 = 0.9	 = 0.09	 = 90	 = $\frac{4}{9}$
---	--	--	---

	Fraction	Decimal	Percent
1.		$0.\overline{4}$	$44.\overline{4}\%$
2.	$\frac{9}{10}$		
3.	$\frac{9}{100}$		

I believe that \_\_\_\_\_ is not true because...





### Part III: Puzzle #7 of 7

TWO TRUTHS + ONE LIE !

**Directions:** Use your math skills to determine which of the three statements below is not true! Explain how you made your decision.

 = 4    = 3    = 7.2    = 5

1)   $\times 10^{\text{$  = 7,200

2)  $8^{\text{$   $\times 8^{\text{$  =  $8^{12}$

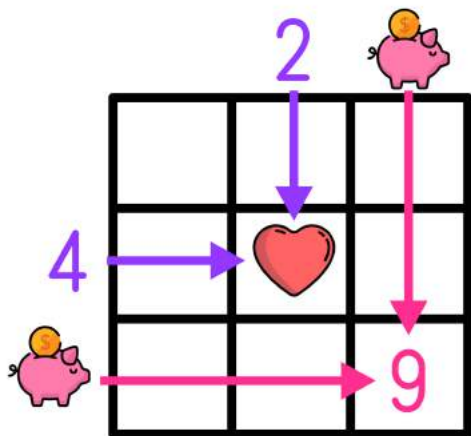
3)  $\text{}^2 + \text{}^2 = \text{}^2$

I believe that \_\_\_\_\_ is not true because...

# Bonus!

## Multiplication Table Puzzles (Grades 3-8)

Multiplication tables work like a Bingo Board where each box represents the product of its corresponding column and row.















$$\text{heart} = 2 \times 4 \rightarrow \text{heart} = 8$$

$$9 = \text{piggy bank} \times \text{piggy bank} \rightarrow \text{piggy bank} = 3$$

## Bonus Puzzle #1 of 3 (Elementary)











**Directions:** Use your math skills to find the value of each symbol in the multiplication table below:









	2		6
	2		6
4			24
6		18	

	<input type="text"/>		<input type="text"/>
	<input type="text"/>		<input type="text"/>
	<input type="text"/>		

Bonus Puzzle #2 of 3 (Intermediate)











Directions: Use your math skills to find the value of each symbol in the multiplication table below:










			3
2			
		25	
	48	30	

	<input type="text"/>		<input type="text"/>		<input type="text"/>
	<input type="text"/>		<input type="text"/>		<input type="text"/>
	<input type="text"/>		<input type="text"/>		

## Bonus Puzzle #3 of 3 (Advanced)

**Directions:** Use your math skills to find the value of each symbol in the multiplication table below:

		7	
8			
	8		24
			144

	<input type="text"/>		<input type="text"/>		<input type="text"/>
	<input type="text"/>		<input type="text"/>		<input type="text"/>
	<input type="text"/>		<input type="text"/>		<input type="text"/>

# Answer Key

## Part I: Grades K-3

1.) Heart=1 Diamond=3 Bolt=4 ?=5	2.) Blue Monster=2 Green Monster=5 Red Monster=1 ?=7	3.) Sun=2 Lady Bug=5 Acorn=3 ?=10	4.) Cap=8 Bowling=6 TV=9 ?=23	5.) Strawberry=5 Pear=4 Peach=10 ?=19	6.) C is not true	7.) 2 is not true
--	--	---	---	---	----------------------	----------------------

## Part II: Grades 4-6

1.) Cake=12 S'Mores=12 Cotton Candy=8 Cupcake=5 ?=25	2.) Coffee=10 Milk=9 Machine=5 Beans=12 ?=69	3.) Sprayer=4 Barber Shop=14 Scissors=7 Hair Gel=11 ?=14	4.) Green Robot=12 White Robot=12 Blue Robot=24 Yellow Robot=7 ?=55	5.) Werewolf=5 Zues=25 Unicorn=25 Cauldron=75 ?=120	6.) 3 is not true	7.) 1 is not true
---	---	---	--	--	----------------------	----------------------

## Part III: Grades 7-8+

1.) Roller Blade=11 Wing Suit=33 Helmet=6 RV=6 ?=28	2.) Desert=8 Snake=7 Genie Lamp=7 Scroll=14 ?=16	3.) Cake=1 Flan=2 Cupcake=2 Macaroons=10 ?=8	4.) Necklace=77 Helmet=19 Skeleton=4 Pony Tail=52 ?=1	5.) Potion=50 Bolt=7 Star=7 Jewels=3 ?=150	6.) 3 is not true	7.) 2 is not true
--	---	---	--	---	----------------------	----------------------

## Bonus Multiplication Tables

1.)	2.)	3.)
Orange=3	Witch=8	Stapler=4
Cherries=1	Sunglasses=5	Marker=12
Coconut=36	Construction=6	Note Pad=2
Blueberries=8	Cowboy=10	Tape=56
Watermelon=12	Mowhawk=16	Lamp=32
	Hair Bun=40	Erase Board=48
	Pony Tail=18 Mummy=15	Magnifier=14
		Calculator=96
		Paper Clip=84



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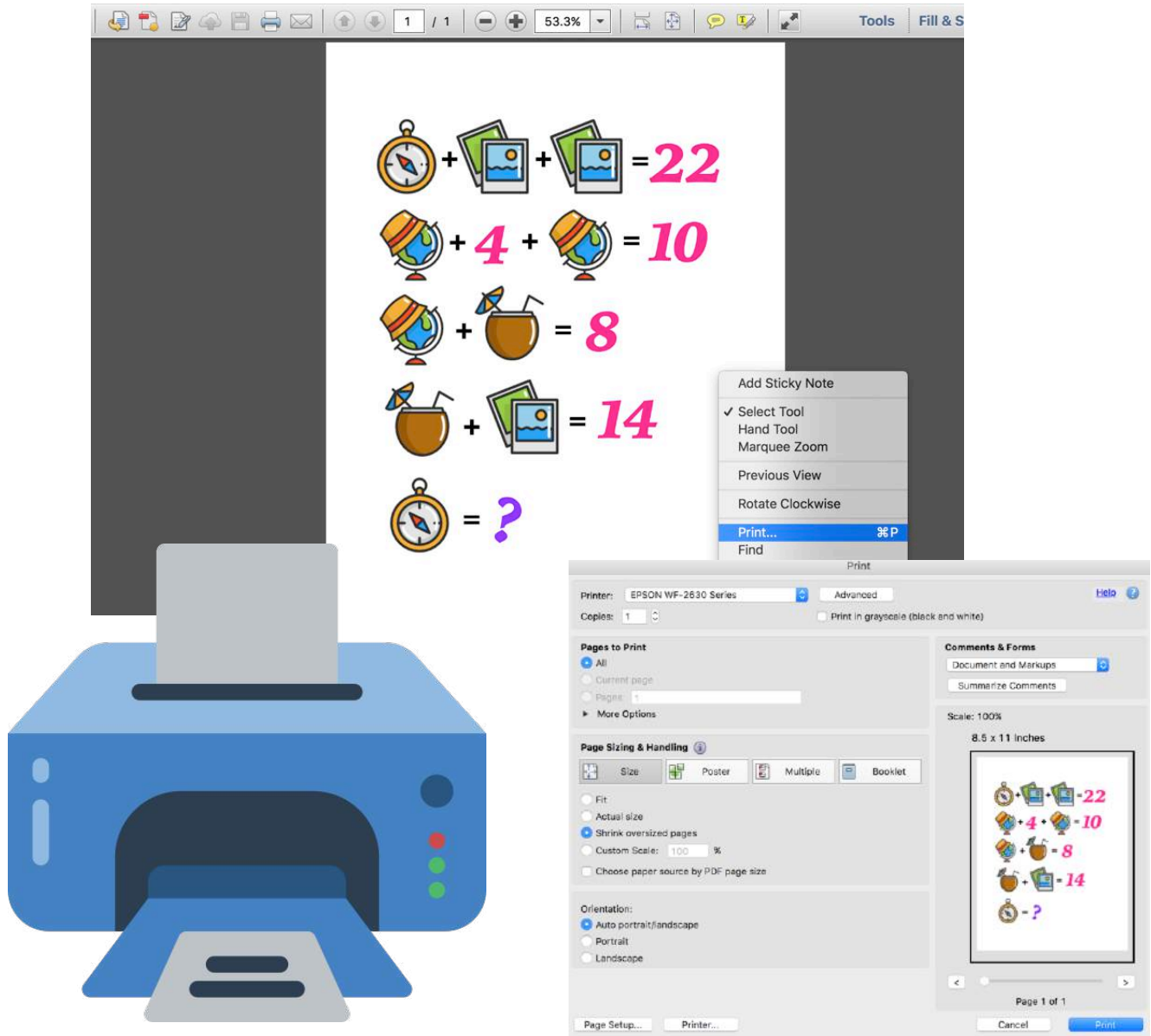
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*As Seen On*



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