MULTIPLYING DECIMALS

TABLE OF CONTENTS

TO THE TEACHER

- This product is meant to be a no frills, all action tool for cementing the concept of multiplying decimals in preparation for standardized testing.
- Each activity can be completed in a variety of ways to fit your classroom needs.
- **It was created with the following standards in mind:**
- TEKS
  - 5.3e solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers
- Common Core
  - CCSS.MATH.CONTENT.5.NBT.B.7 Add, subtract, multiply, and divide decimals to the hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

PREP RECOMMENDATIONS

- Each activity is created in black and white to conserve color ink.
  - Using colored paper to differentiate different parts in each activity or the different stations will help students to stay organized.
- If you plan to use the activities for small group or partner activities over time, I would recommend laminating them for durability.

CONTENT VOCABULARY

solve
product
decimal
hundredths
multiplication
strategies
each
use
factor
tenths
place value
money
total
every
properties of operations

solve

use

product

factor

decimal

tenths

hundredths

place value

multiplication

money

strategies

total

each

every

properties of operations

MONEY MATTERS

Evaluate and solve each word problem dealing with money.

TEACHER SUGGESTIONS
MONEY MATTERS

- In this activity students are asked to solve word problems dealing with money.
- This activity can be used in a variety of ways
  - ✓ Small group with teacher guidance
  - ✓ As partner activity for practice
  - ✓ Independently to assess

Materials

Included:
- Money Word Problem Cards
- Recording Sheet
- Answer Key

Not Included:
- Pencil

1

Bella bought three shirts on sale for $7.99 each. How much money did she spend in all?

2

The cost of a pizza is $9.99 during the week and $12.99 during the weekend. How much would four pizzas cost on a Tuesday?

3

A box of crayons is $2.99 during the back to school sale. How much would it cost a teacher to buy a class set of 22 boxes?

4

A necklace retails for $8.99. A bracelet sells for $5.50. How much would it cost you to buy five bracelets?

5

A ticket to the county fair costs $7.50. How much would it cost a family of six to attend the fair?

6

A movie ticket is $8.79. How much would it cost for a group of five friends to see a movie together?

7

A taco plate is only $1.79 on Tuesdays, so Carlos decides to get three and eat them all week. How much did Carlos spend?

8

Angelica and her two friends went to Six Flags for the day. If a ticket costs $55.89 a person, how much did they pay?

9

A yearbook sells for $12.78 each. How much would it cost parents of triplets to buy one for each child?

10

A ride on the train at the park is $3.25 per person. How much would it cost two parents and their three kids to ride?

11

A corn dog can be purchased for 99¢. How much would it cost you to buy 5 corn dogs?

12

A soda costs $1.29 at the gas station. How much would it cost you to buy a soda each for you and your two pals?

Name _____ #_____ Date_____

MONEY MATTERS RESPONSE SHEET

Read and evaluate each word problem involving money and then solve.

1	2	3
4	5	6

more on back

Name _____ #_____ Date_____

MONEY MATTERS RESPONSE SHEET

Read and evaluate each word problem involving money and then solve.

7	8	9
10	11	12

MONEY MATTERS ANSWER KEY

1 $23.97	**2** $39.96	**3** $17.38	**4** $27.50
5 $45	**6** $43.95	**7** $14.37	**8** $167.67
9 $38.34	**10** $16.25	**11** $4.95	**12** $3.87

WORD PROBLEMS

Read and solve each word problem.

TEACHER SUGGESTIONS WORD PROBLEMS

- In this activity students are asked to solve word problems for multiplying decimals.
- This activity can be used in a variety of ways
  - ✓ Small group with teacher guidance
  - ✓ As partner activity for practice
  - ✓ Independently to assess

Materials

Included:
- Word Problem Cards
- Recording Sheet
- Answer Key

Not Included:
- Pencil

1

There are nine pieces of rope that each measure 12.34 meters long. What is the combined length of the pieces?

2

A park is 1.1 miles long and 3.2 miles wide. What is the area of the park?

3

Hill Song Elementary is 40 the size of Hill Lake Elementary. If Hill Lake has 235 students, how many students are at Hill Song?

4

Alan ran six cross country races. Each race was 5.4 miles long. What is the combined distance he ran?

5

A jackrabbit travels 2.7 meters per second. How far can it travel in one minute?

6

A DVD case is .25 inches thick. How long would a row of 40 DVD cases go?

7

It is 2.64 blocks to school from Sue's house. If she walks this distance every morning for 5 days, how far did she walk?

8

It takes Randall .87 minutes to run a lap around the track. How long will it take him to run 20 laps?

9

A bag of onions weighs 3.24 pounds. How much would 6 bags of onions weigh?

10

Greg's dad is 1.27 times his height. If Greg is 65 inches tall, how tall is his dad?

11

A 5K run is 3.2 miles long. How far would you run if you did three 5Ks?

12

A cartoon movie is 117 minutes long. A live action movie is 1.45 times the length. How long is the live action movie?

Name _____ #_____ Date_____

WORD PROBLEMS RESPONSE SHEET

Read and evaluate each word problem, and then solve.

1	2	3
4	5	6

more on back

Name _____ #_____ Date_____

WORD PROBLEMS RESPONSE SHEET

Read and evaluate each word problem, and then solve.

7	8	9
10	11	12

WORD PROBLEMS ANSWER KEY

1 111.06 meters	**2** 3.52 miles^2	**3** 94 students	**4** 32.1 miles
5 162 meters	**6** 10 inches	**7** 13.2 blocks	**8** 17.4 minutes
9 3.14 pounds	**10** 82.55 inches	**11** 9.6 miles	**12** 169.65 minutes

MODEL MATCH

Match each equation to the model that it represents.

TEACHER SUGGESTIONS
MODEL MATCH

- In this activity students are asked to match equations multiplying decimals with the models that can be used to solve them.
- This activity can be used in a variety of ways:
  - ✓ Small group with teacher guidance
  - ✓ As partner activity for practice
  - ✓ Independently to assess

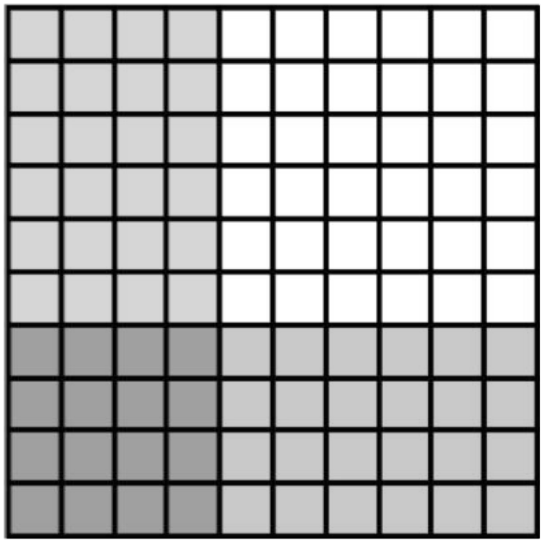
***Due to the shading on this activity, please check after printing/copying to ensure that students can see the different levels of shading. You may need to use a highlighter to identify the areas of overlap.**

Materials

Included:
- Equation Cards
- Model Cards
- Recording Sheet
- Answer Key

Not Included:
- Pencil

1



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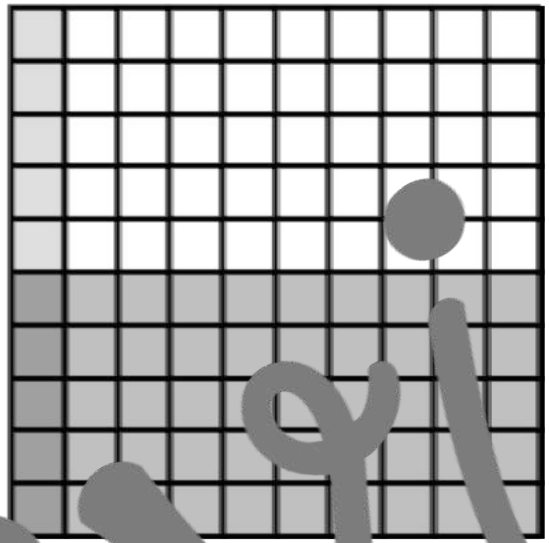

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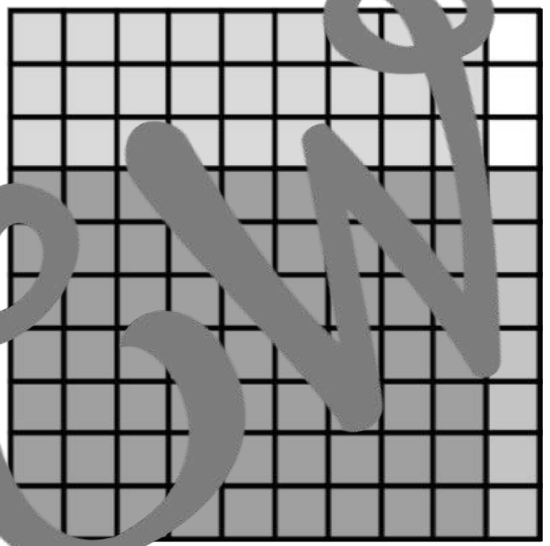

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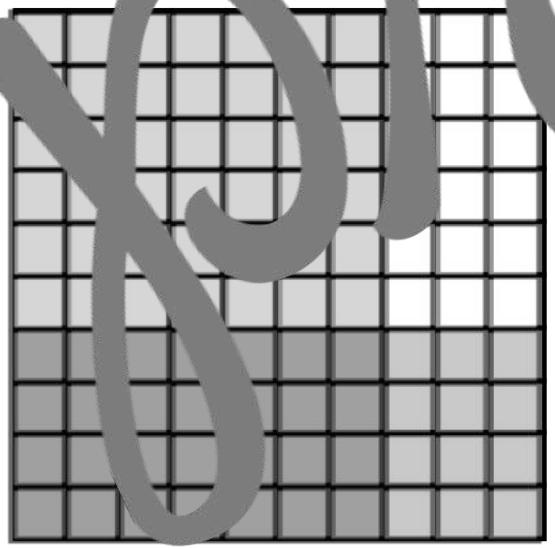

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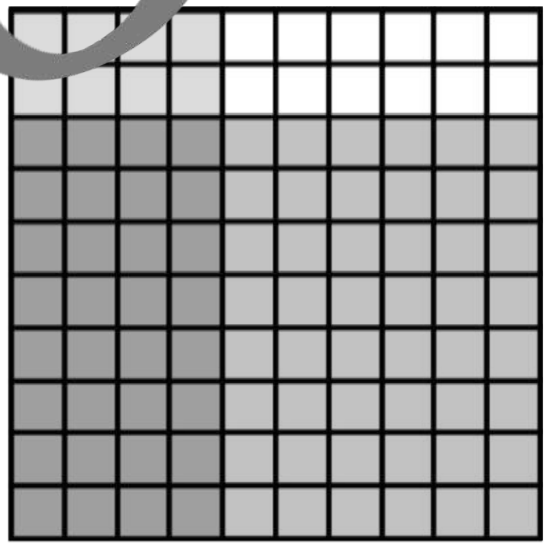

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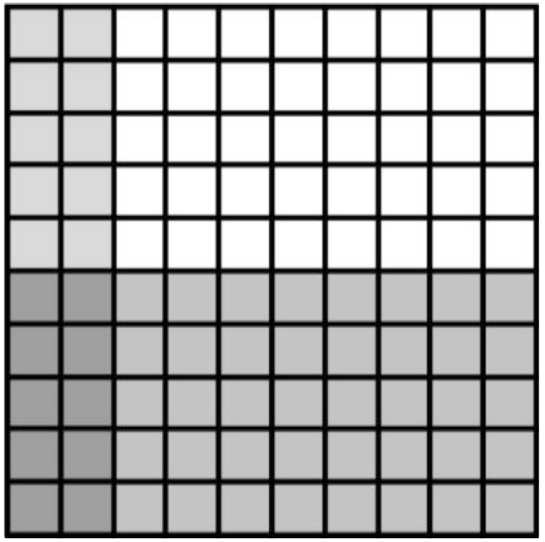

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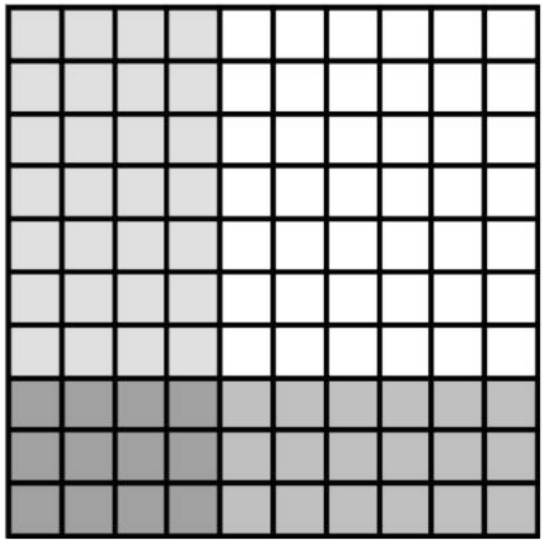

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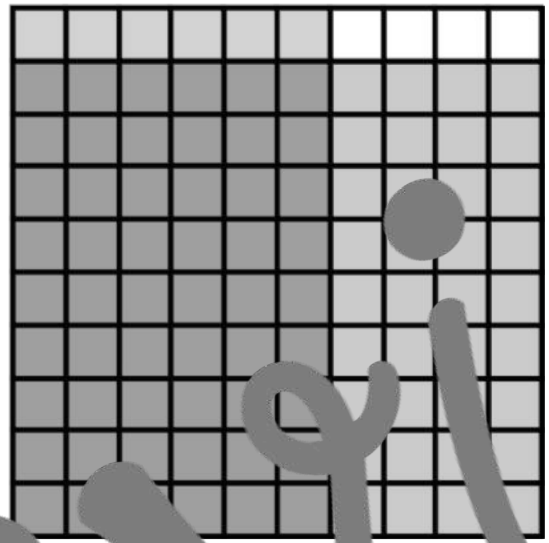

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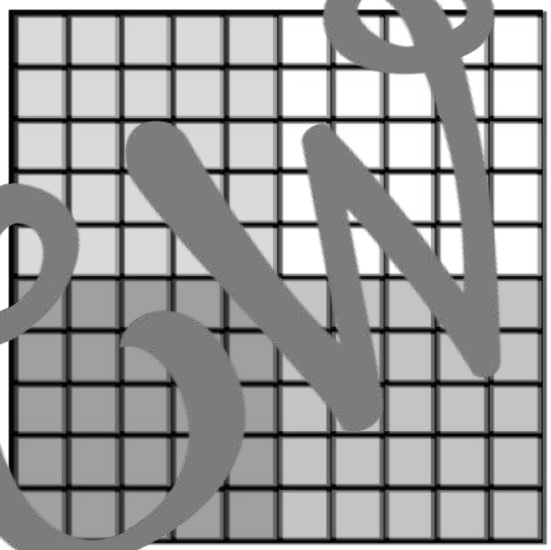

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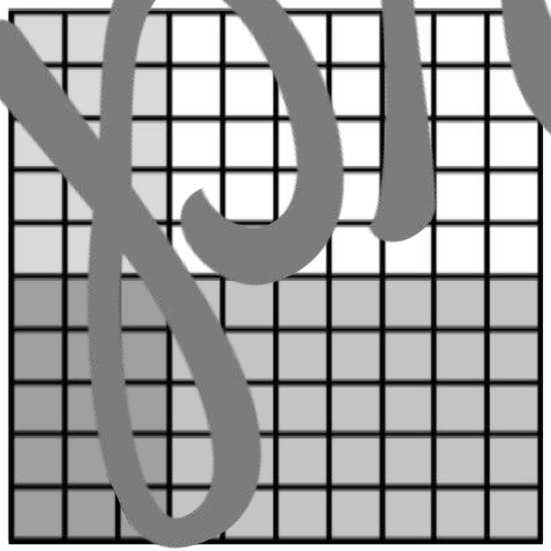

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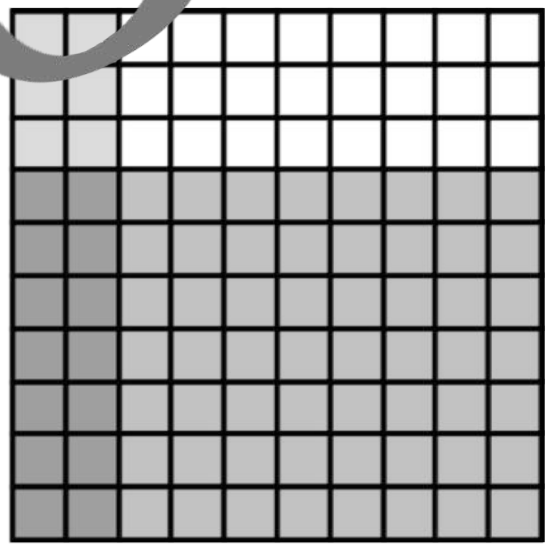

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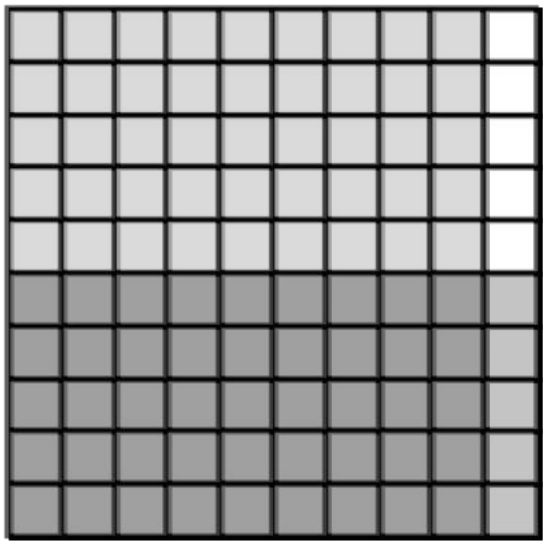


B

$0.4 \times 0.4 = 0.16$

E

$0.1 \times 0.5 = 0.05$

I

$0.9 \times 0.7 = 0.63$

K

$0.7 \times 0.4 = 0.28$

A

$0.4 \times 0.8 = 0.32$

H

$0.2 \times 0.5 = 0.1$

F

$0.4 \times 0.3 = 0.12$

D

$0.6 \times 0.9 = 0.54$

J

$0.5 \times 0.5 = 0.25$

L

$0.3 \times 0.5 = 0.15$

E

$0.2 \times 0.7 = 0.14$

G

$0.9 \times 0.5 = 0.45$

Name _____ #_____ Date_____

MODEL MATCH RESPONSE SHEET

Match each model to the equation that it represents

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

MODEL MATCH ANSWER KEY

1B	2E	3I	4K
5A	6H	7F	8D
9J	10L	11C	12G

QR CODES

Scan the "START" card and follow the directions to use all cards stopping at the "END" card.

TEACHER SUGGESTIONS
QR CODES

- In this activity students are asked to scan QR codes and follow the directions by multiplying the decimals given.
- This activity can be used in a variety of ways:
  - ✓ Small group with teacher guidance
  - ✓ A partner activity for practice
  - ✓ Independently to assess

Materials

Included:
- QR Code Cards

Not Included:
- A device capable of scanning QR Codes such as a smartphone or tablet

START

0.12

0.36

0.84

0.42

0.78

0.77

0.68

0.7

0.72

0.15

0.28

END

PUZZLE

Complete each equation and match it to the answer to complete the puzzle.

TEACHER SUGGESTIONS PUZZLE

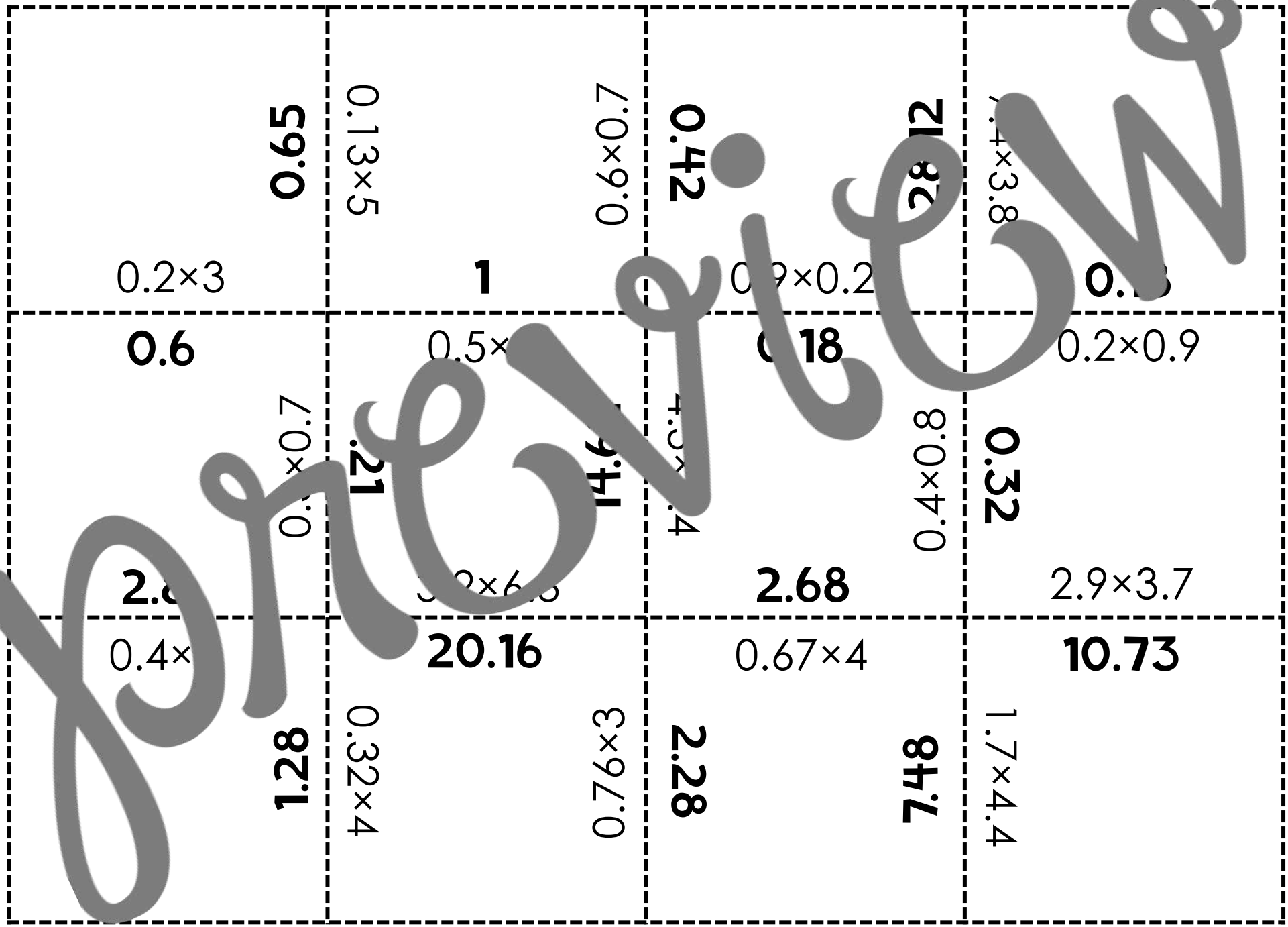
- In this activity students are asked to solve equations multiplying decimals and match them to their products to complete a puzzle.
- This activity can be used in a variety of ways:
  - ✓ Small group with teacher guidance
  - ✓ A partner activity for practice
  - ✓ Independently to assess

Materials

Included:
- Puzzle Pieces
- Work Sheet
- Answer Key

Not Included:
- Pencil

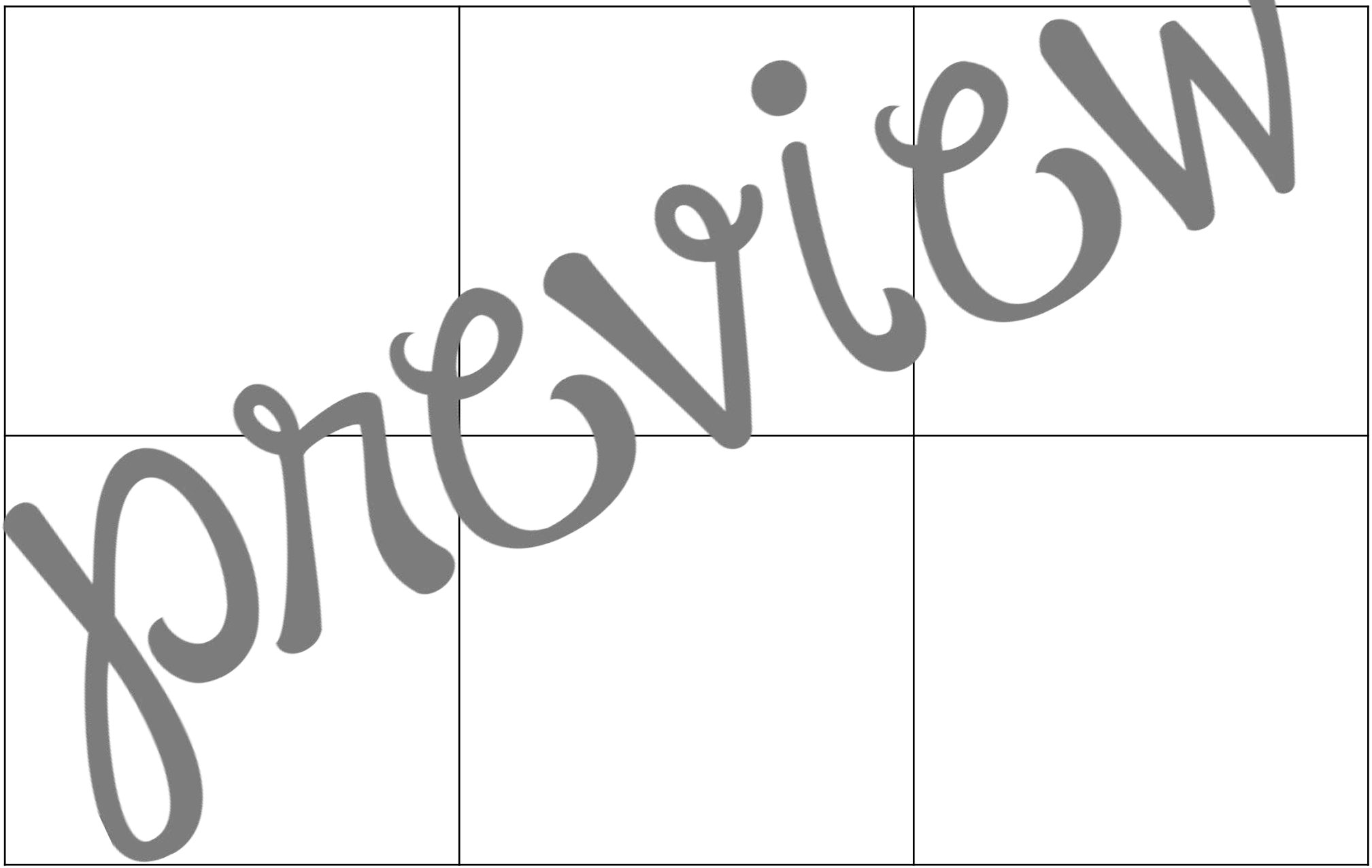
PUZZLE



Name _____ #_____ Date_____

PUZZLE RESPONSE SHEET 1/3

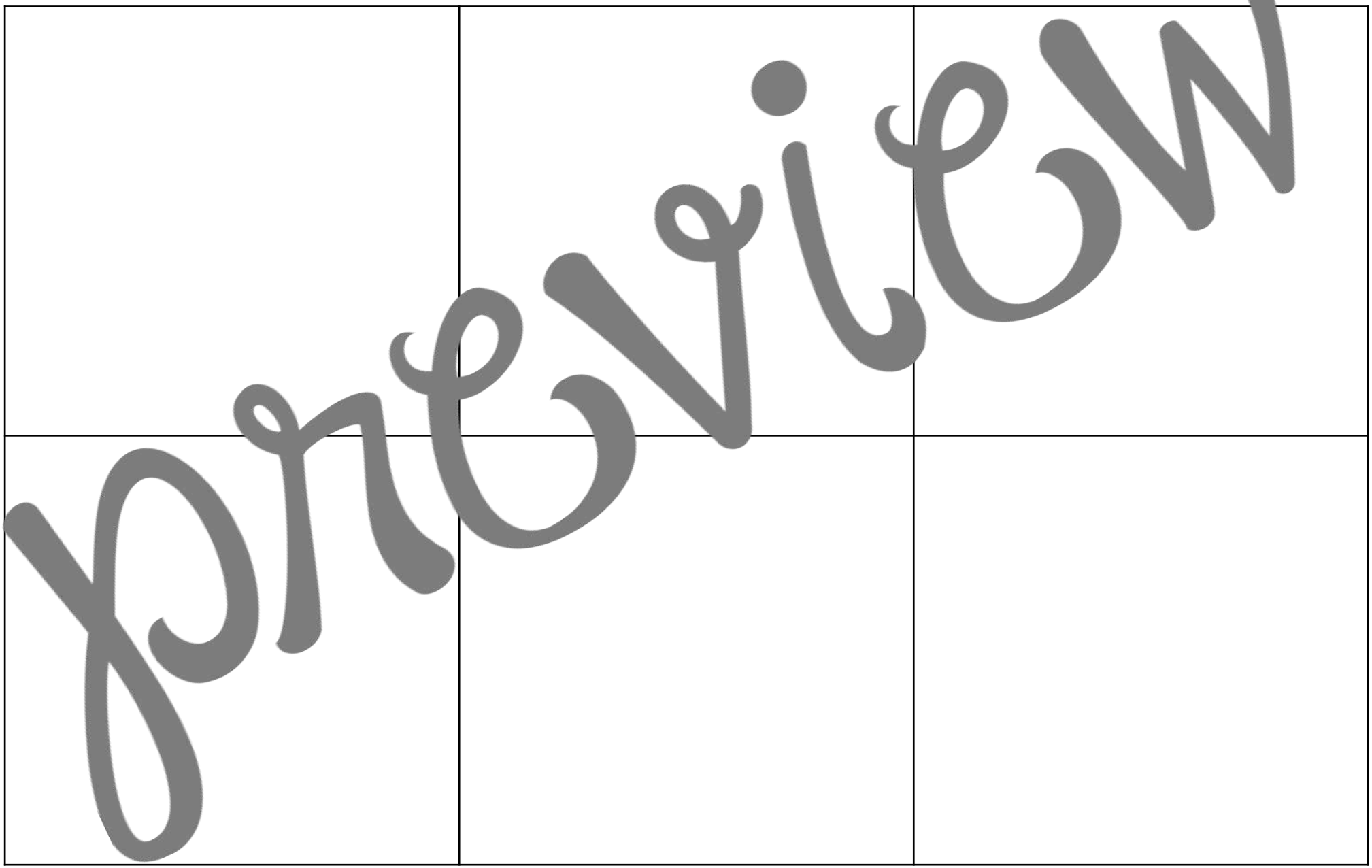
Use the spaces below to show your work for the puzzle



Name _____ #_____ Date_____

PUZZLE RESPONSE SHEET 2/3

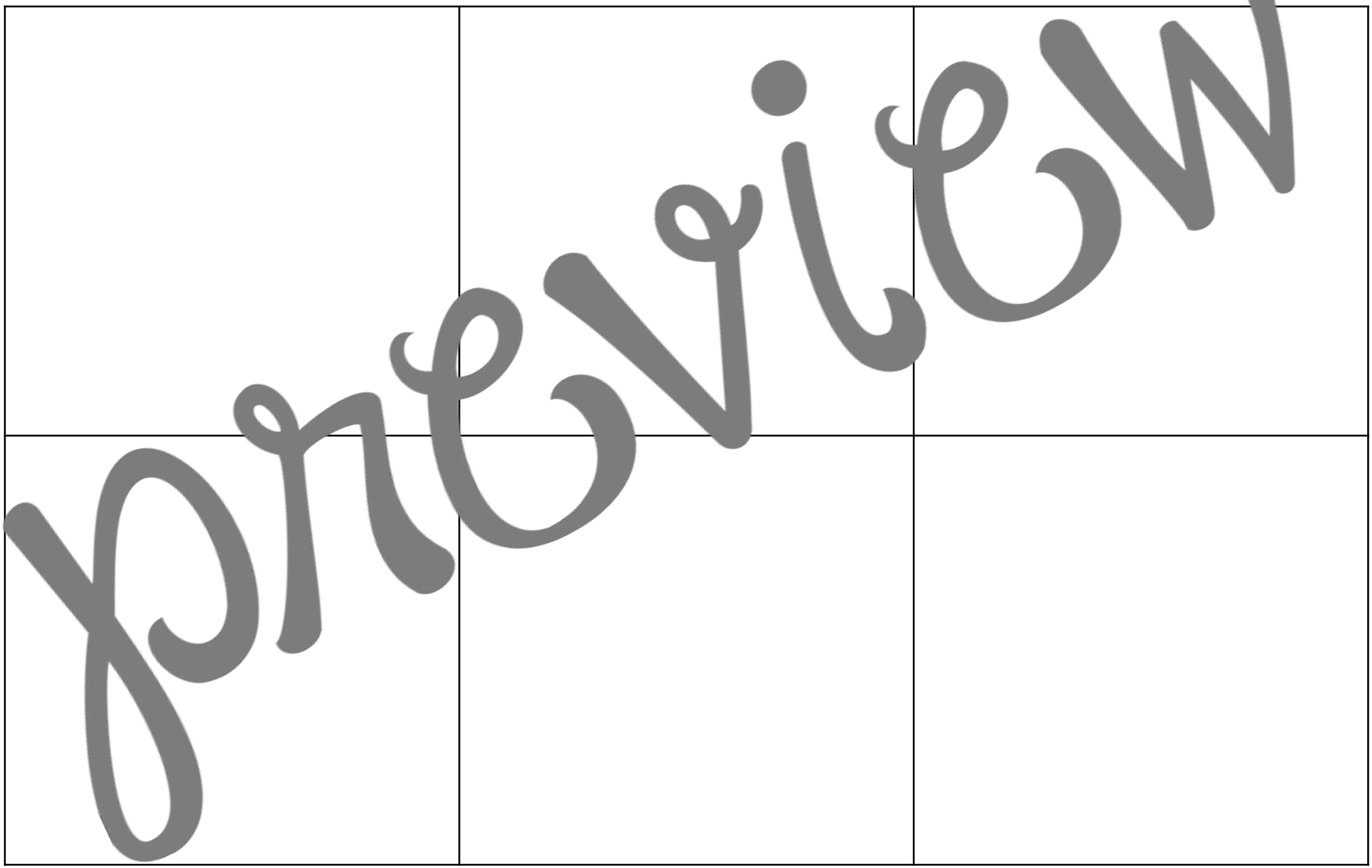
Use the spaces below to show your work for the puzzle



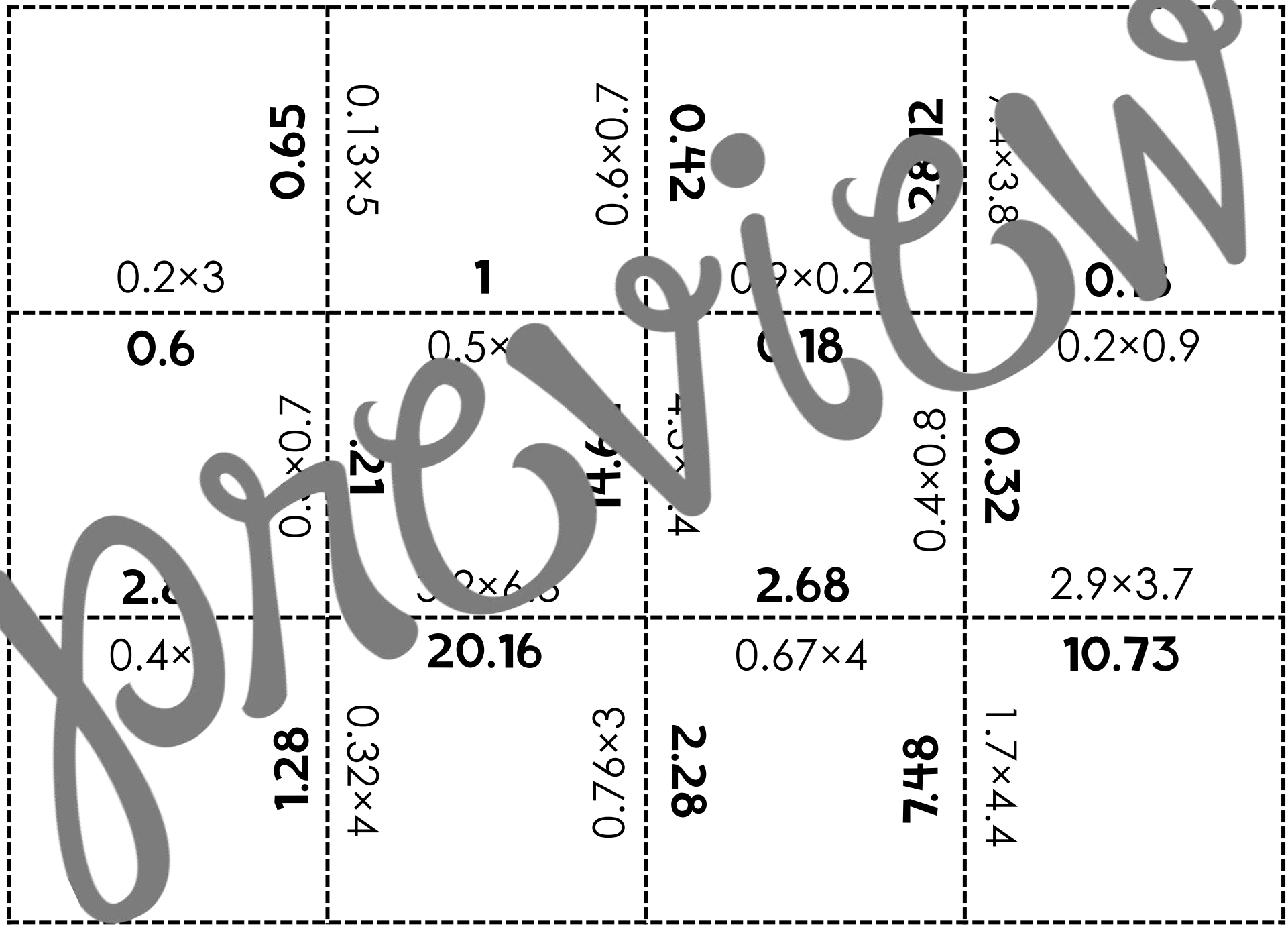
Name _____ #_____ Date_____

PUZZLE RESPONSE SHEET 3/3

Use the spaces below to show your work for the puzzle



PUZZLE ANSWER KEY



WRAP AROUND

Solve each equation and line it up with the answer. Continue to do this until you form a complete circle with the cards.

TEACHER SUGGESTIONS WRAP AROUND

- In this activity students are asked to solve equations multiplying decimals to complete a circle of equations.
- This activity can be used in a variety of ways:
  - ✓ Small group with teacher guidance
  - ✓ A partner activity for practice
  - ✓ Independently to assess

Materials

Included:
- Wrap Around Cards
- Work Sheet
- Answer Key

Not Included:
- Pencil

0.24	0.64	0.15
0.8×0.8=	0.5×0.3=	0.3×0.11=
0.36	0.72	0.09
0.8×0.9=	0.3×0.3=	0.6×0.6=

0.36	0.42	0.21
0.7×0.6=	0.3×0.7=	0.8×0.4=
0.32	0.28	0.77
0.4×0.7=	0.7×0.11=	0.4×0.6=

Name _____ #_____ Date_____

WRAP AROUND RESPONSE SHEET 1/2

Multiply each set of decimals, then find the answer . Line up your answers in a circle until you complete the circle with your last answer being on the card you started with.

1	2	3
4	5	6

more on back

Name _____ #_____ Date_____

WRAP AROUND RESPONSE SHEET 2/2

Multiply each set of decimals, then find the answer . Line up your answers in a circle until you complete the circle with your last answer being on the cord you started with.

7	8	9
10	11	12

WRAP AROUND ANSWER ORDER

0.24	0.64	0.15	0.33	0.72	0.99
0.8×0.8=	0.5×0.3=	0.3×0.11=	0.8×0.9=	0.3×0.3=	0.6×0.6=
0.36	0.42	0.21	0.32	0.28	0.77
0.6×0.6=	0.3×0.7=	0.8×0.4=	0.4×0.7=	0.7×0.11=	0.4×0.6=

SPIN & MULTIPLY

Spin to find your two decimals and then multiply to find your answer.

TEACHER SUGGESTIONS SPIN AND MULTIPLY

- In this activity students are asked to spin two spinners and then multiply the given decimals.
- This activity can be used in a variety of ways
  - ✓ Small group with teacher guidance
  - ✓ As partner activity for practice
  - ✓ Independently to assess

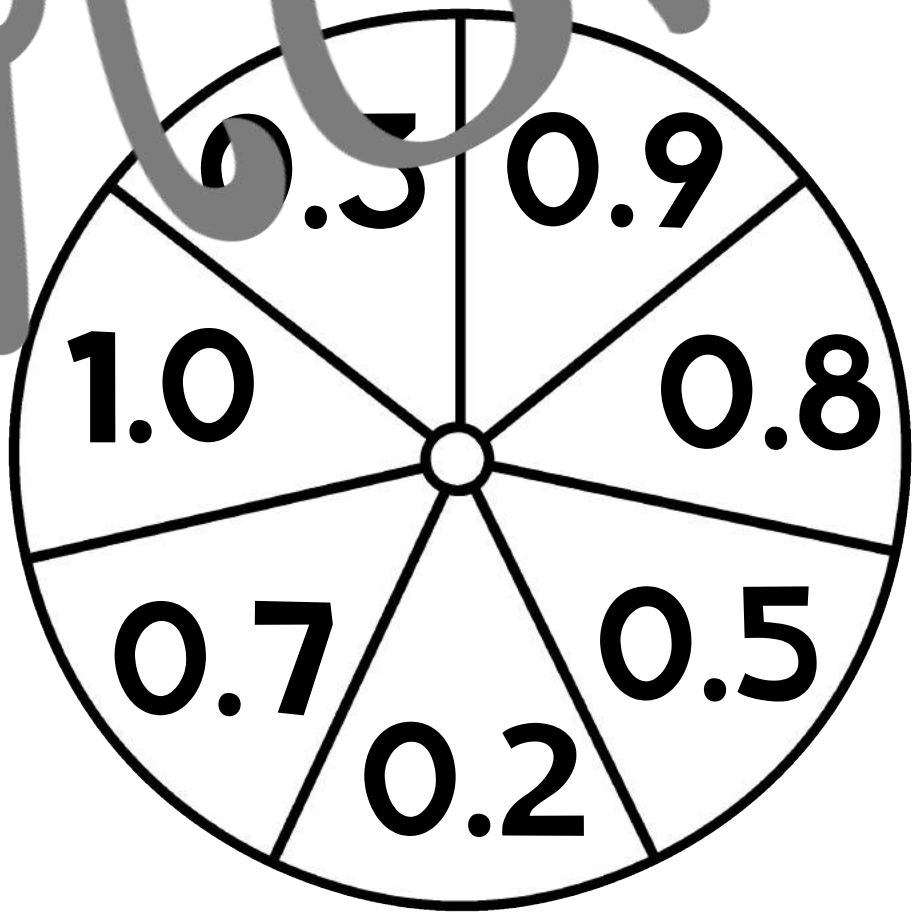
Materials

Included:
- Spinners
- Recording Sheet

Not Included:
- Pencil
- Answer Key

SPIN & MULTIPLY

DECIMAL 1



Name _____ #_____ Date_____

SPIN & MULTIPLY RESPONSE SHEET 1/2

Spin each spinner once and then multiply the two decimals.

1	2	3
4	5	6

more on back

Name _____ #_____ Date_____

SPIN & MULTIPLY RESPONSE SHEET 2/2

Spin each spinner once and then multiply the two decimals.

7	8	9
10	11	12

MODEL & SHADE

Use two different colors to shade the model to find the product of the decimals.

TEACHER SUGGESTIONS
MODEL SHADE

- In this activity students are asked to shade a model to go along with an equation.
- This activity can be used in a variety of ways:
  - ✓ Small group with teacher guidance
  - ✓ As another activity for practice
  - ✓ Independently to assess

Materials

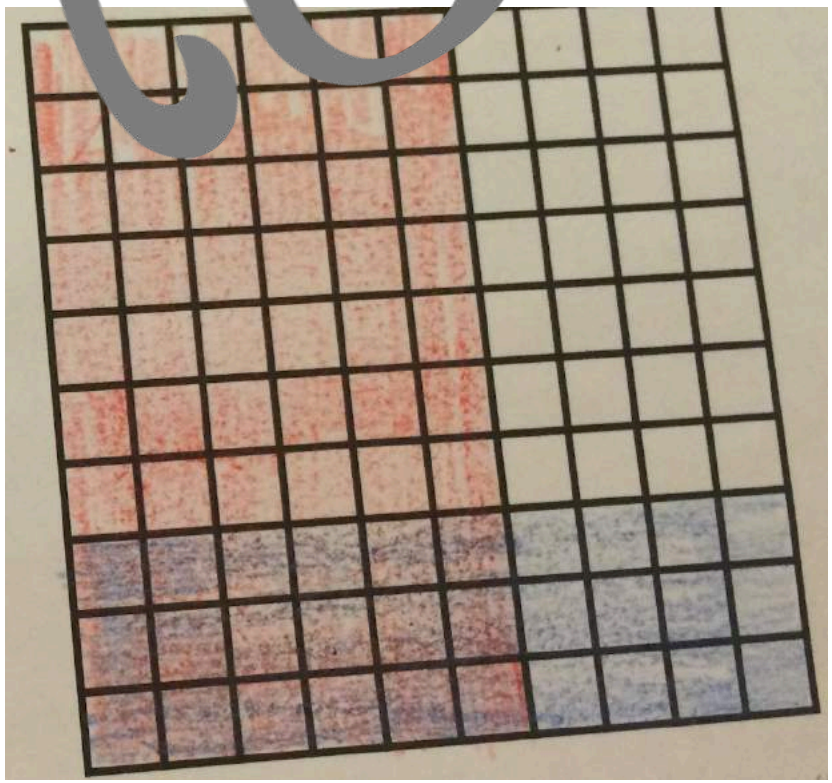
Included:
- Equation Cards
- Example of Shading
- Recording Sheet
- Answer Key

Not Included:
- Pencil

1	**2**	**3**
0.2×0.3	0.7×0.4	0.8×0.6
4	**5**	**6**
0.9×0.6	0.5×0.2	0.1×0.9
7	**8**	**9**
0.3×0.4	0.7×0.2	0.4×0.5
10	**11**	**12**
0.5×0.8	0.3×0.9	0.2×0.7

EXAMPLES OF SHADING

0.9×0.4=0.36 0.6×0.3=0.18

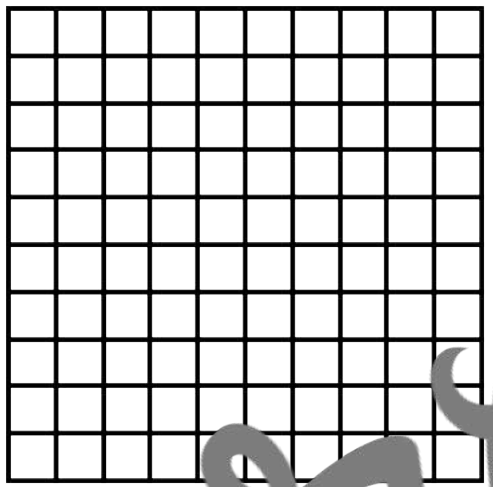


Name _____ #_____ Date_____

MODEL SHADE RESPONSE SHEET 1/2

Use two different colors to shade the model to find the product of the decimals.

1



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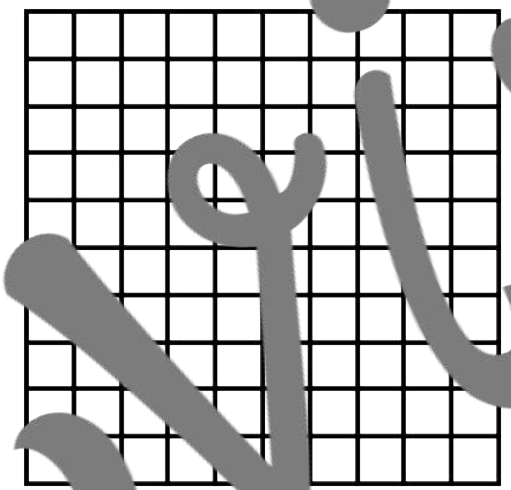

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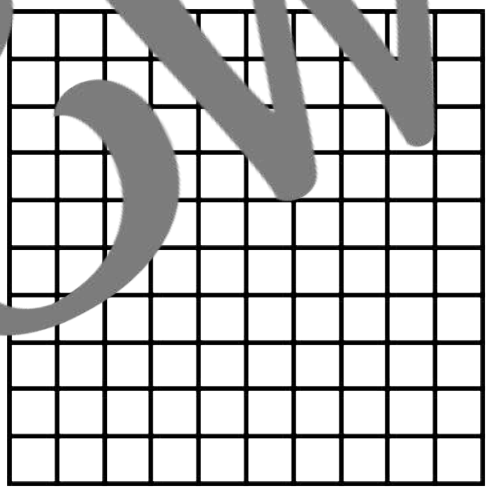

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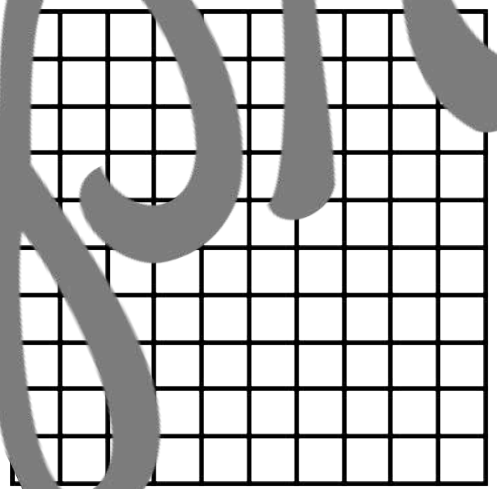

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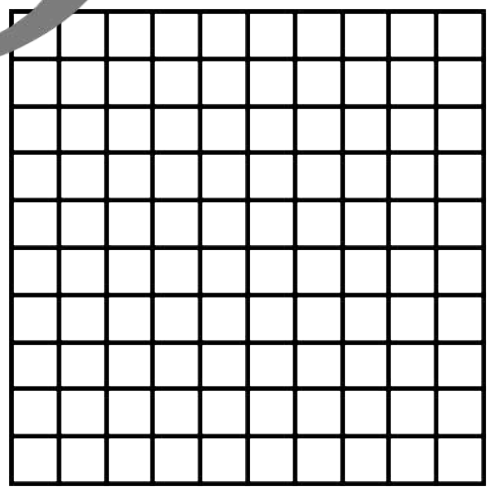

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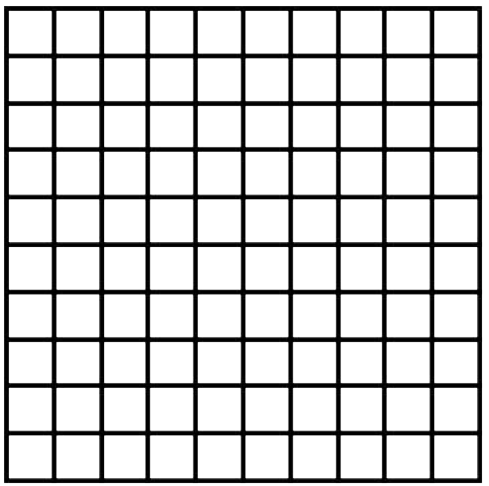

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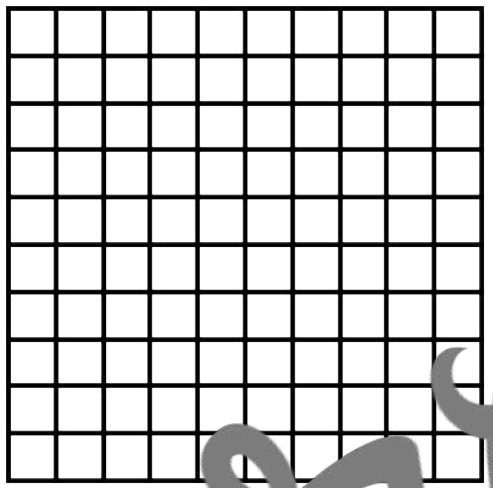
Name _____ #_____ Date_____

MODEL SHADE RESPONSE SHEET 2/2

Use two different colors to shade the model to find the product of the decimals.

7



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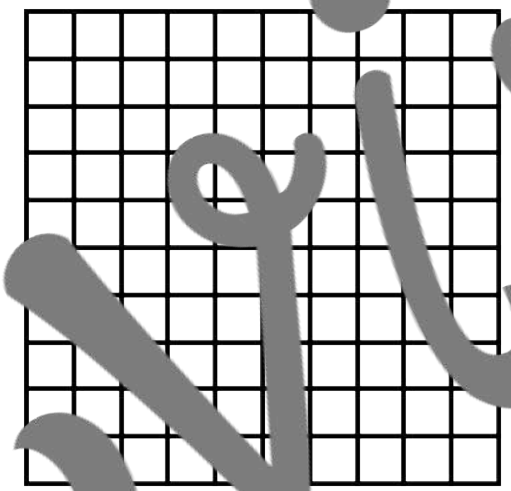

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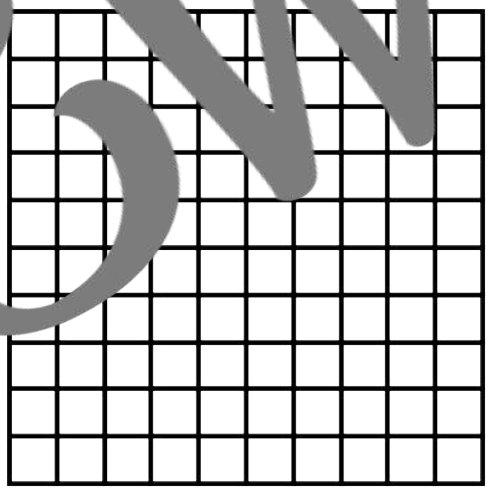

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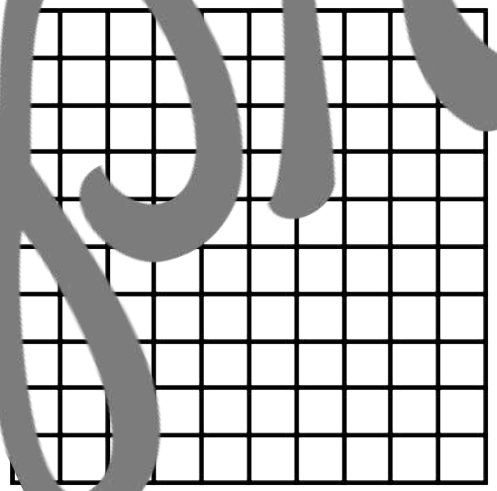

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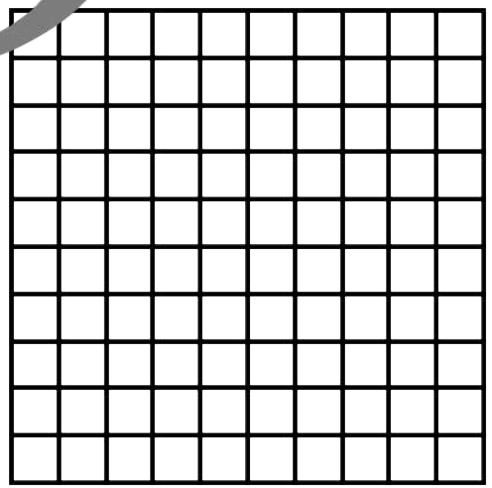

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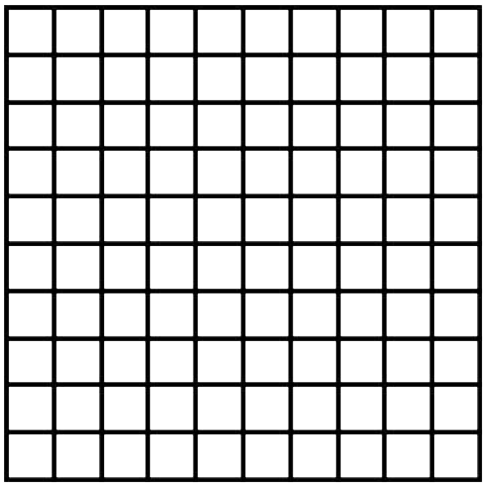
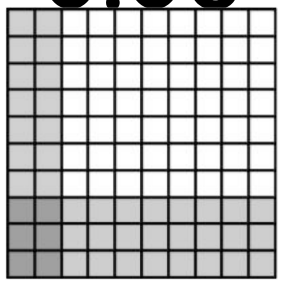
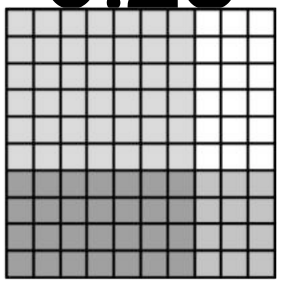
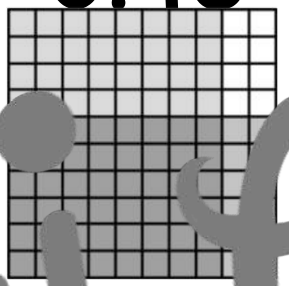
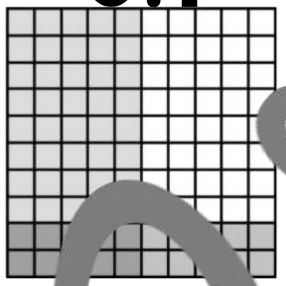
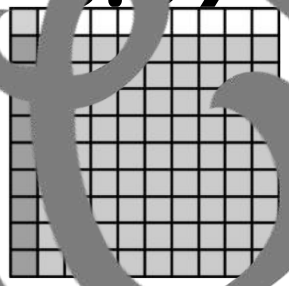
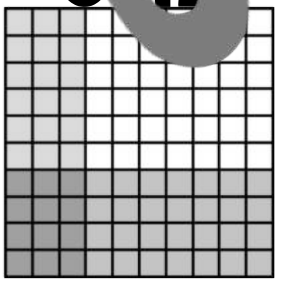
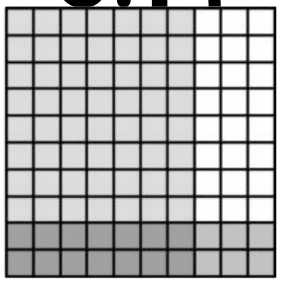
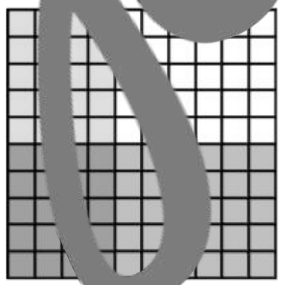
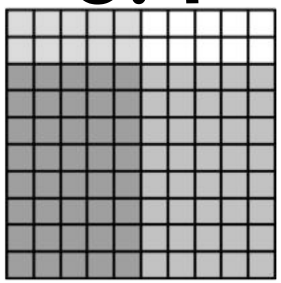
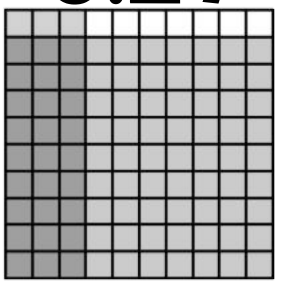
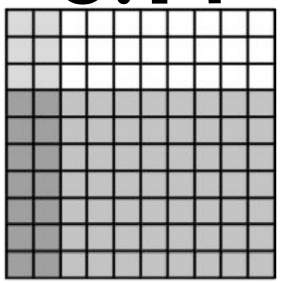


MODEL SHADE ANSWER KEY

1 0.06 	2 0.28 	3 0.48 	4 0.9 
5 0.1 	6 0.09 	7 0.12 	8 0.14 
9 0.2 	10 0.4 	11 0.27 	12 0.14 

PLACE THE DECIMAL

Evaluate each equation and place the decimal in the answer in the correct location.

TEACHER SUGGESTIONS PLACE THE DECIMAL

- In this activity students are asked to place the decimal in the correct location of an answer.
- This activity can be used in a variety of ways
  - ✓ Small group with teacher guidance
  - ✓ As partner activity for practice
  - ✓ Independently to assess

Materials

Included:
- Cards with Missing Decimal in Answer
- Recording Sheet
- Answer Key

Not Included:
- Pencil

1	2	3
0.2×0.2=040	0.3×0.4=012	0.8×0.5=040
4	**5**	**6**
0.3×0.6=018	0.7×0.2=014	0.3×0.9=027
7	**8**	**9**
0.3×0.8=024	0.7×0.6=042	0.7×0.5=035
10	**11**	**12**
0.5×0.1=050	0.3×0.2=060	0.9×0.7=063

Name _____ #_____ Date_____

PLACE THE DECIMAL RESPONSE SHEET

Place the decimal in the correct location of each product.

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

PLACE THE DECIMAL ANSWER KEY

1 0.04	**2** 0.12	**3** 0.4	0.18
5 0.14	**6** 0.27	**7** 0.24	**8** 0.42
9 0.35	**10** 0.05	**11** 0.06	**12** 0.63

MULTI-STEP

Evaluate and solve each multi-step problem.

TEACHER SUGGESTIONS MULTI-STEP

- In this activity students are asked to solve multi-step word problems including multiplying decimals.
- This activity can be used in a variety of ways
  - ✓ Small group with teacher guidance
  - ✓ In partner activity for practice
  - ✓ Independently to assess

Materials

Included:
- Multi-Step Word Problem Cards
- Recording Sheet
- Answer Key

Not Included:
- Pencil

1

22 students and 3 teachers went on a field trip to the museum. If admission was $4.50 per person, how much did they pay to get in?

2

Elyse bought 3 pairs of shoes for $14.99 each. She also bought a coat for $67.49. How much did she spend?

3

A class is raising money for a field trip, and so far have raised $19.50. To meet the class goal each of 25 students needs to raise 75¢. What is the class goal?

4

A package of paper costs $7.58. A toner cartridge costs $59.49. How much would it cost to buy one toner cartridge and 3 packages of paper?

5

A large water barrel fits 30.6 gallons of water. A small barrel fits 12.9 gallons of water. How many gallons are in two small barrels and 3 large barrels?

6

One pen can completely fill 7.8 pages with writing. One pencil can fill 3.[illegible] pages with writing. How many pages of writing could 4 pens and 2 pencils fill?

7

All 23 students in Mrs. Sundquist's class brought $5.75 towards their trip. All 24 students in Mrs. Campos's class brought in $5.50. How much more money did Mrs. Sundquist's class bring in than Mrs. Campos's class?

8

A room is 23.4 feet long and 16.6 feet wide. A rug in the middle of the room is a 9.3 foot square. How much of the floor is not covered by the rug?

Name _____ #_____ Date_____

MULTI-STEP RESPONSE SHEET 1/2

Evaluate and solve each multi-step problem.

1	2
3	4

more on back

Name _____ #_____ Date_____

MULTI-STEP RESPONSE SHEET 2/2

Evaluate and solve each multi-step problem.

5	**6**
7	**8**

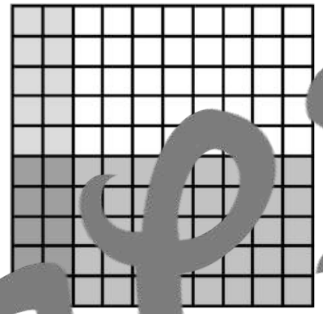
MULTI-STEP ANSWER KEY

1 $112.50	**2** $112.45	**3** $38.25	**4** $86.23
5 117.6 gallons	**6** 38.6 pages	**7** 25¢ more	**8** 301.95 square feet

Name _____ #_____ Date _____

TEST BRIDGE QUESTIONS

1. The hundredths model in the figure is shaded to represent the multiplying of two numbers. What equation can be represent by the shaded parts of the model?



a. 50×20=1,000
b. 5×2=10
c. 0.5×0.2=0.1
d. 0.05×0.02=0.1

2. Randy spent $2.30 on lunch every day for 12 days. What is the amount of money Randy spent on these lunches?

a. $20.80
b. $28.08
c. $2.80
d. $82.80

3. Mrs. Leland makes a treat for each of the 22 students in her homeroom and the 23 students in her other class. The materials for each treat cost $0.32. What is the total cost of the materials Mrs. Leland will use to make the treats?

a. $1.44
b. $144
c. $14.40
d. $14.44

4. A package of ten pieces of cardstock costs $1.29. A package of 120 pieces of cardstock costs $13. How much can you save by buying the larger package?

a. $2.48
b. $248
c. $24.80
d. $11.71

TEST BRIDGE ANSWER KEY

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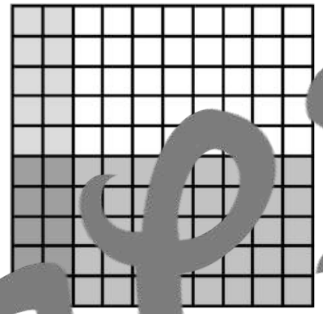

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