# MULTI-STEP PROBLEM SOLVING

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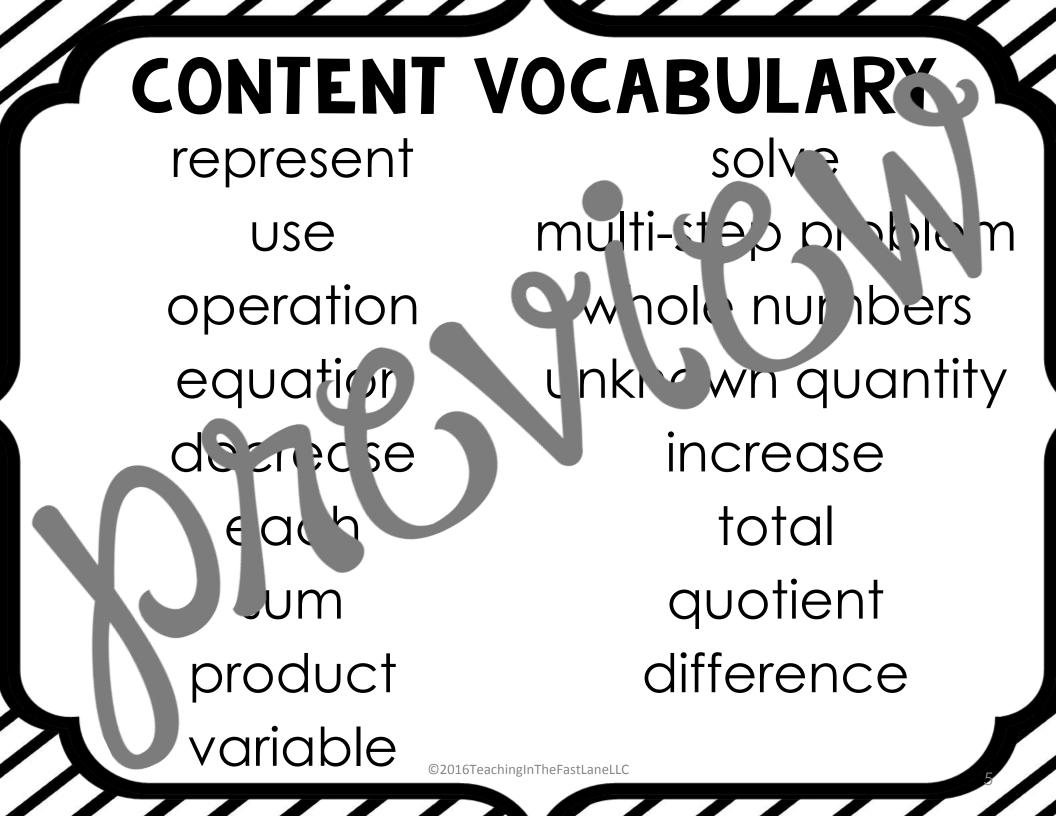
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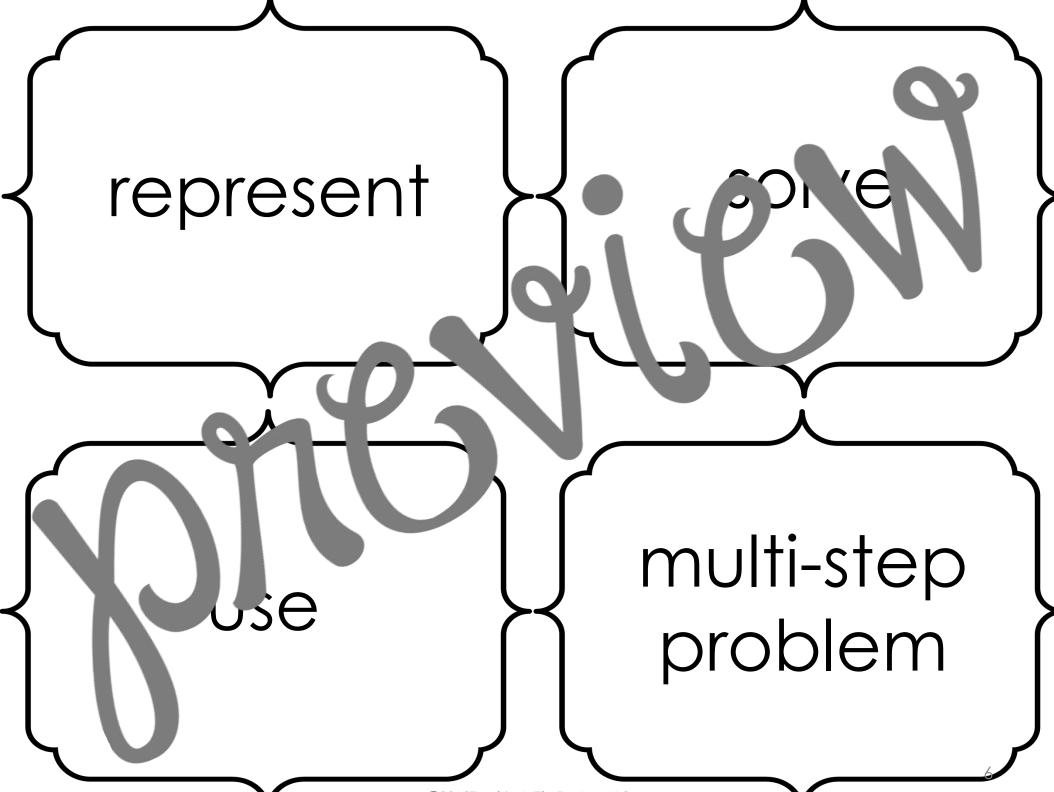
## TO THE TEACHER

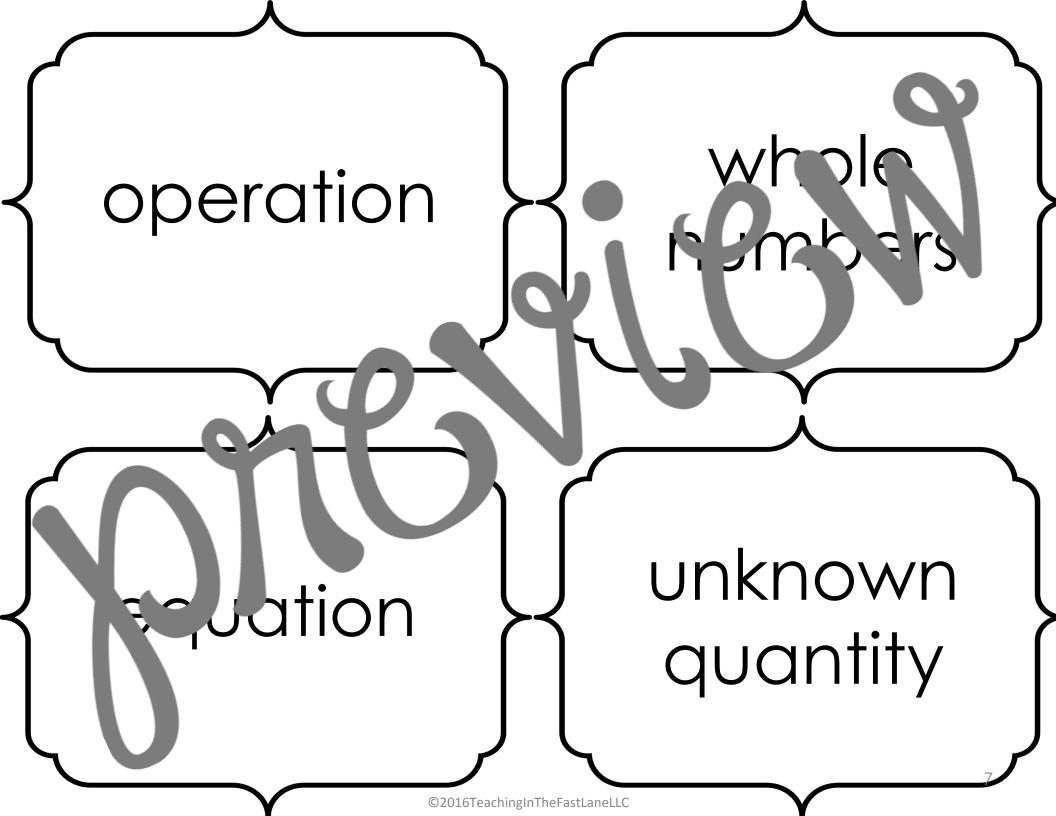
- This product is meant to be a no frills, all action tool for cementing the concept of multi-step problem solving in preparation for standardized testing.
- Each activity can be completed in a variety of ways to fit your classroom needs.
- It was created with the following standards in mind:
- TEKS
  - 5.4b represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity

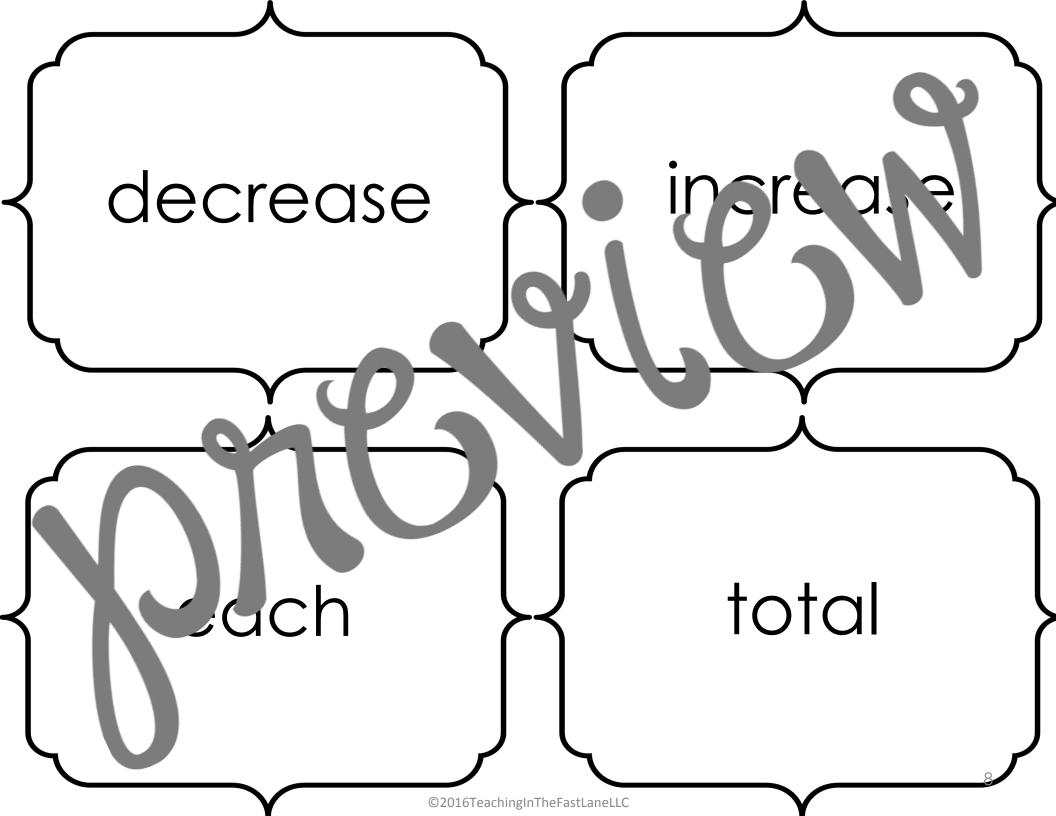
### PREP RECOMMENDATIONS

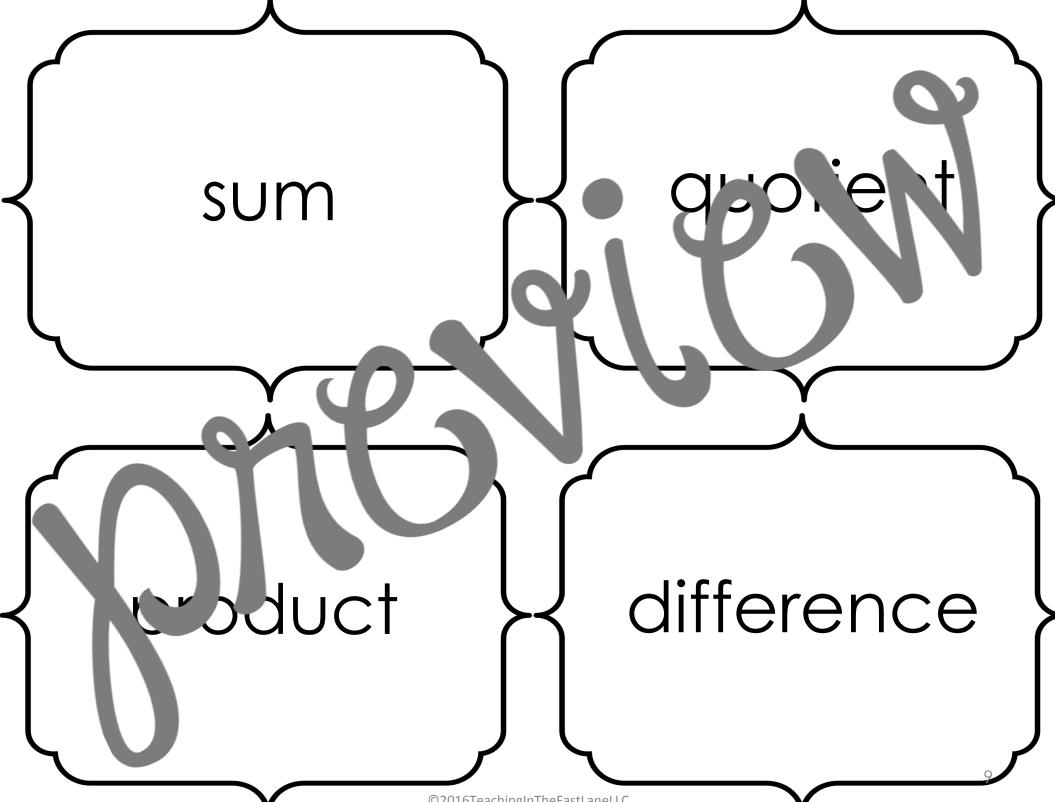
- Each activity is created in black and white to conserve color ink.
  - Using colored paper to differentiate different parts in each activity or the different stations will help students to stay organized.
- If you plan to use the activities for small group or partner activities over time, I would recommend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

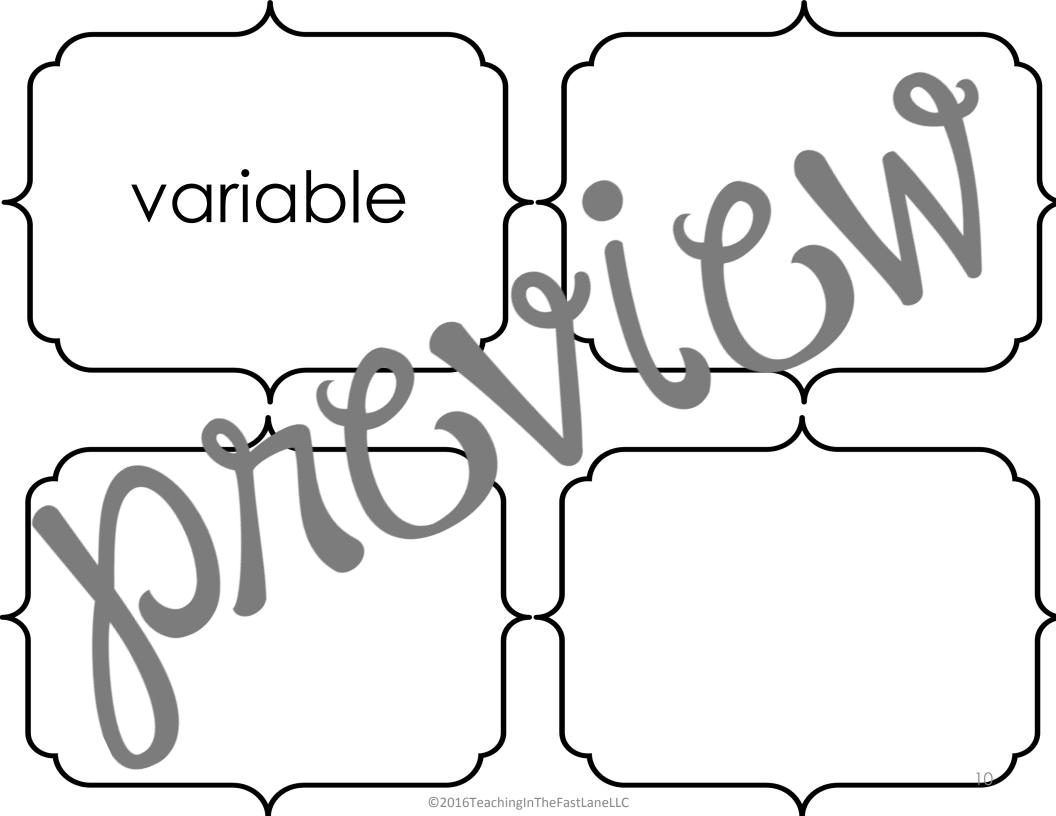












QUAI ch equation to the **n**-step word problem that it represents.

## TEACHER SUGGESTIONS EQUATION MATCH

- In this activity students are asked to match each equation to the mull step word problem that it represent.
- This notifity call be used in a variet of wurs:
  - Small group with teacher dance
  - A partner activity for practice
    - ndependently to assess

Inc ided

<u>Mate</u>

Word Problem Cards

ls

- Equation Cards
- Recording Sheet
- Answer Key Not Included:
- Pencil

Gabriel watched 3 half hour shows and a 96 minute movie. If he took no breaks in between each show and movie how long was he watching for? Brandy spent \$12 or huch, \$6 each on two ditre ent shirts, and \$8 in a mayie taket. I she started with \$ 10, how much i only loes the have left?

Vercines two notebook Foch niteboochas 76 pagies. So ia ishe has used 34 procession How many pages ire still blank?

### 4

Tess has saved \$50 towards buying a prom dress. She made \$12 by mowing a lawn, and \$8 for walking a dog. If she then spent \$6 of her savings, how much money does she have left? Jake checked out two books. The first book was 198 pages long and he has read 45 pages of it. the second book is 129 pages and he hasn't started it yet. How many pages doe ne have left to reac?

There are 5, whethin the short of and seven days in a weak. You are in school for 185 and you not in school? A math test has 48 questions. You have completed (2 of them all ady. I in tak f you three minutes to control to each yue tion, how nucl-longer vill it take you to complete the test?

#### Greg saved \$12 a month for two years, but he also spent \$17 each year. At the end of the two years, how much money will he have saved?

Sean is pet sitting to save money for camp. He charges \$2 a day for a cat and \$5 a day for a dog. How much will he earn watching two cats and a dog for a wee<sup>1-2</sup>

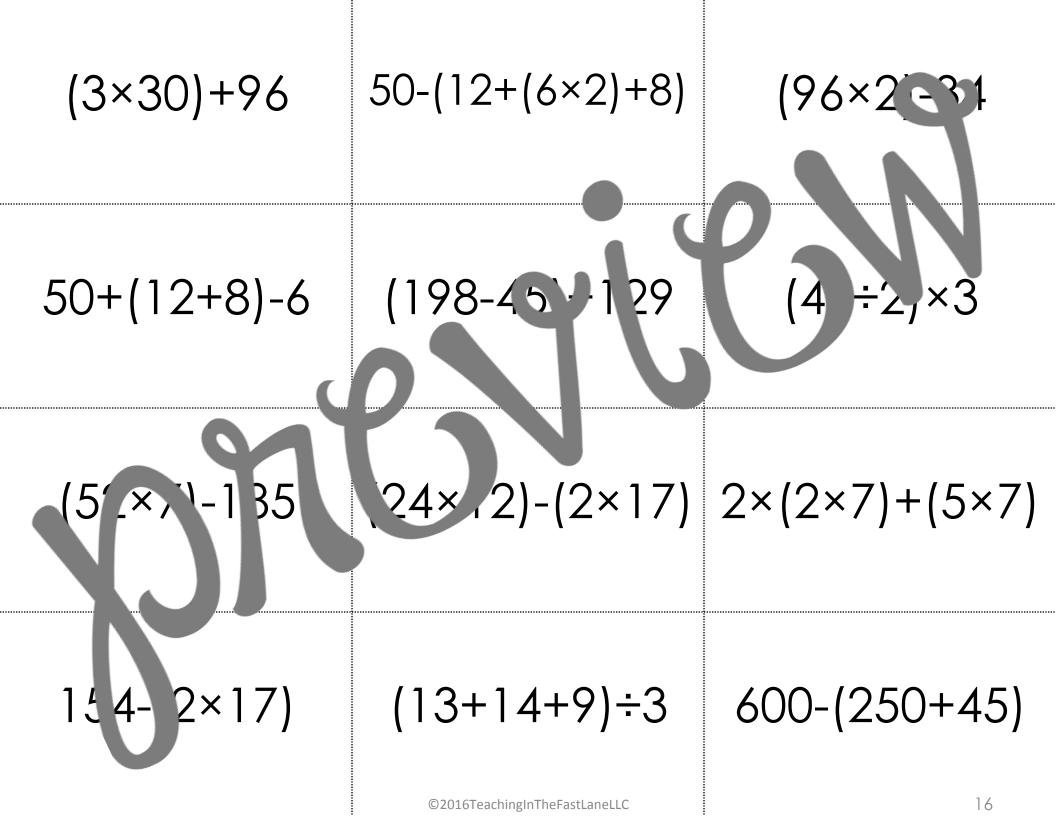
There are 3 Skittles, 14 M&Ms, and 9 Dese's Pielles. If howe friends are shar to we candy equally, how muny pieces of candy will each friend get?

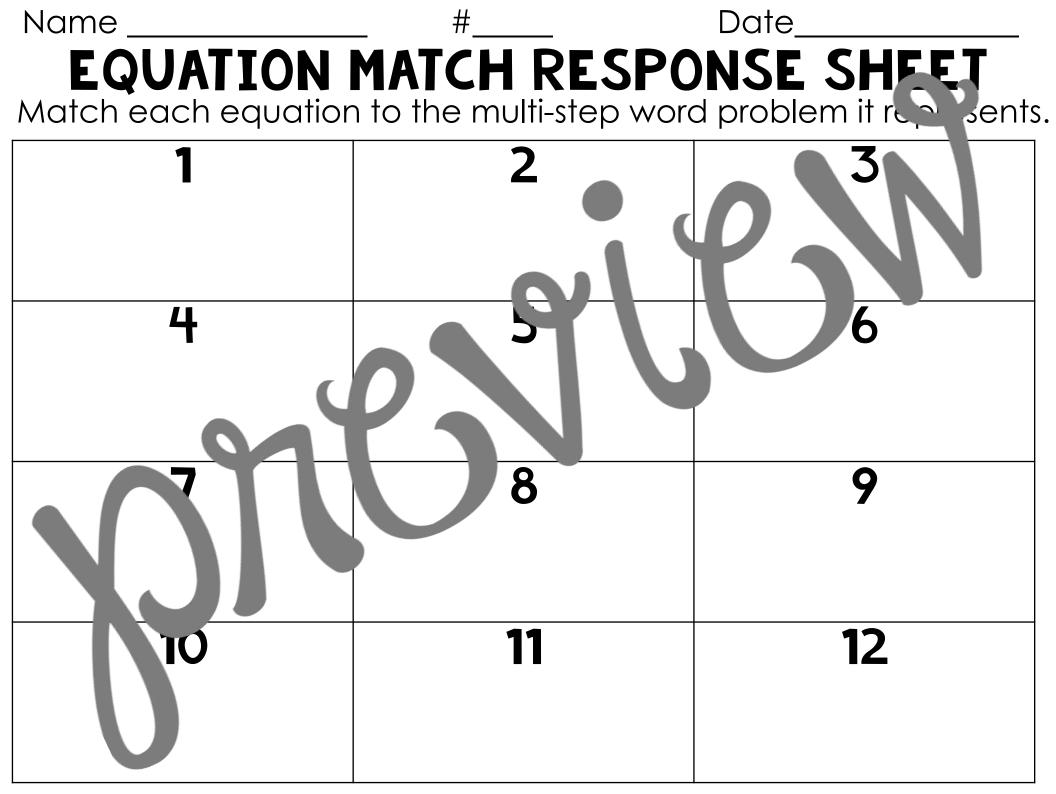
### 10

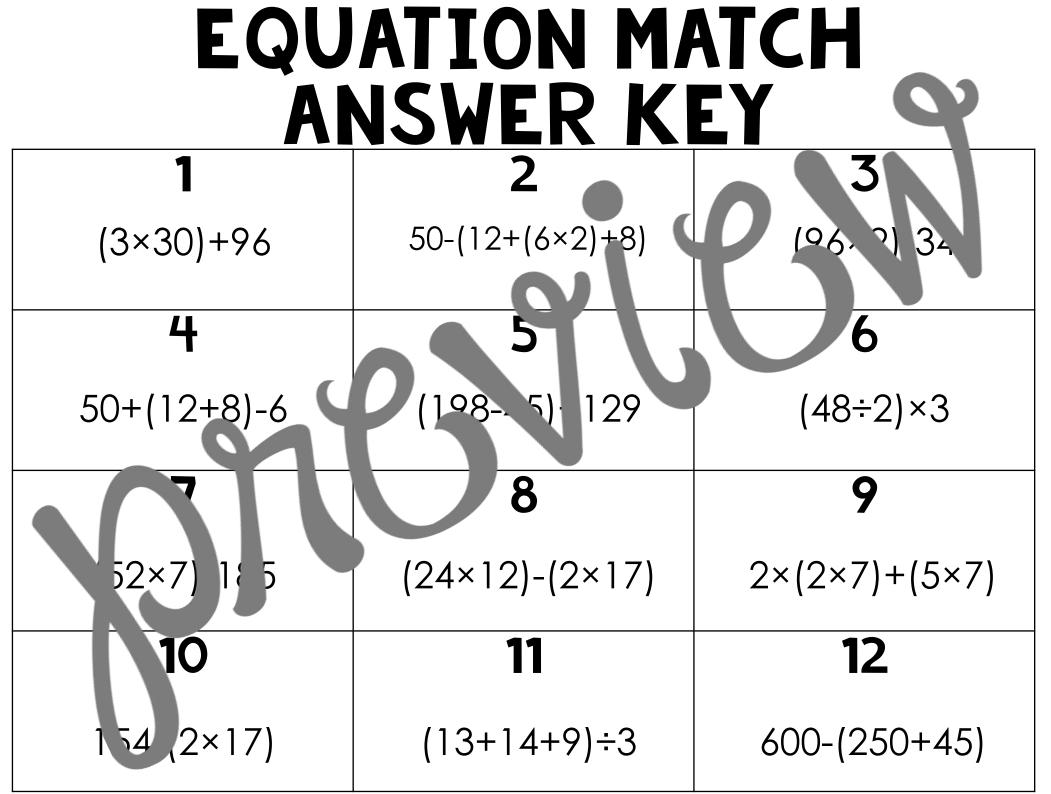
A plane ticket for Annal to visit her aunt is \$154. It she drives instead the vill reed to till up were constants to III up her got to k. How tuch money con she save ky diving instead of flying?

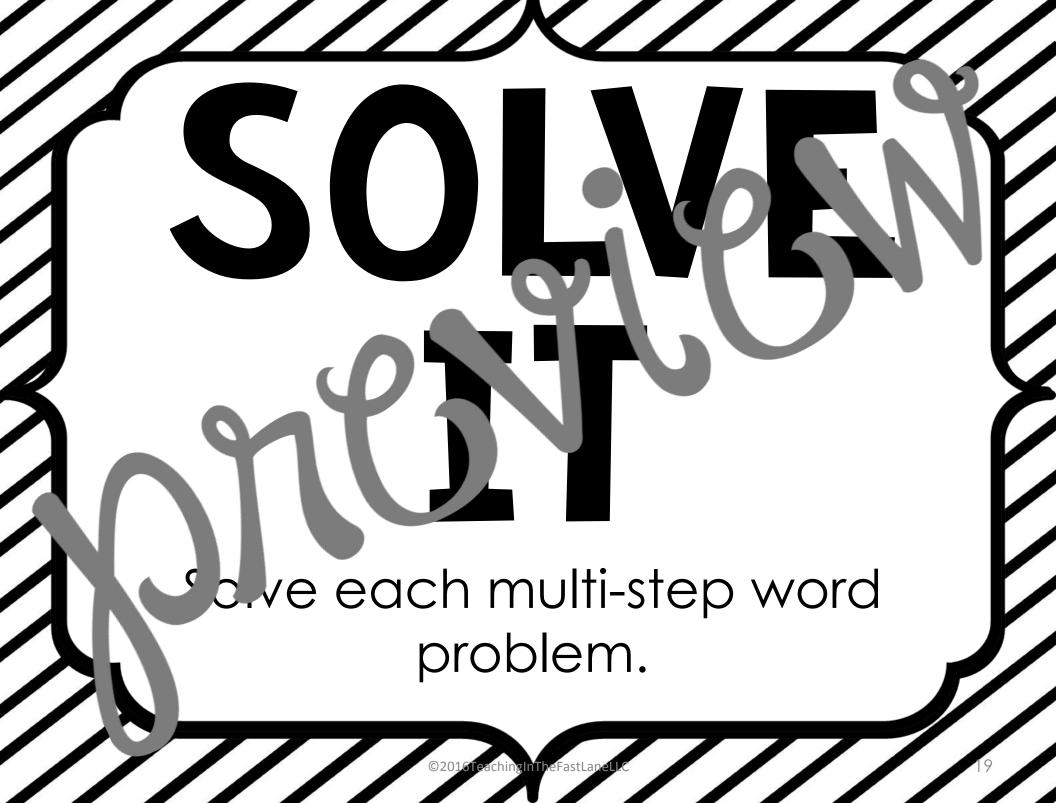
### 12

A newspaper ad costs a small business \$250 to run for a single day. They also spent \$45 getting the ad designed. The day the ad ran the store made a \$600 profit. After covering the cost of the ad, how much did the store make that day?









### TEACHER SUGGESTIONS SOLVE IT

- In this activity students are asked to solve multi-step word problems
- This activity con be used in a variety of may;
   mall group with teacher
  - g idence A a ner activity for
  - pr c ce
  - Independently to assess

<u>Mate</u> <u>Is</u>

- Inc ided
  - Word Problem
  - Cards
- Recording Sheet
- Answer Key
- Not Included:
- Pencil

Frank bought a snake at the pet store for \$27. He also bought it a terrarium for twice that much, and food for \$6. How much did he spend altogether at the pet store?

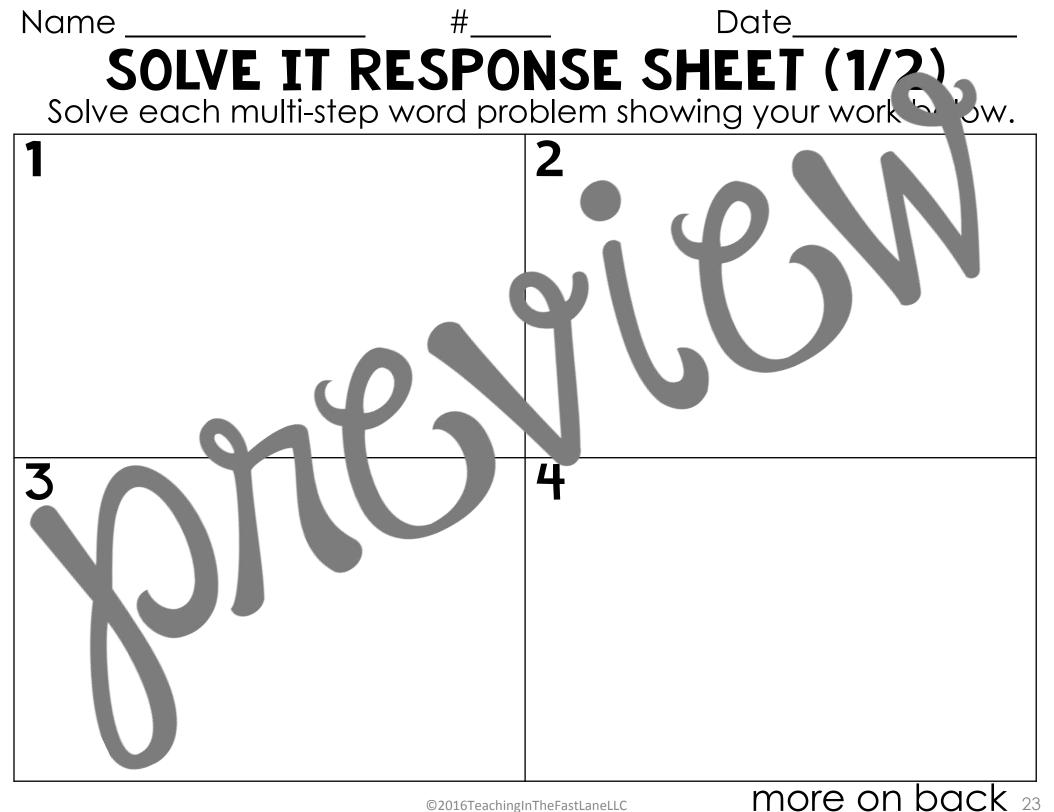
Hannahas mreeicenticul hainting to frage. Each paining is 6 nches tall and 12 ir che wide. How many ir ches of wood does Hannaheed to frame all hee paintings? There are 13 boys and 9 girls in Mrs. Sundquist". homeroom. Tach of the sudent in as a bok of 24 craye is to the other used?

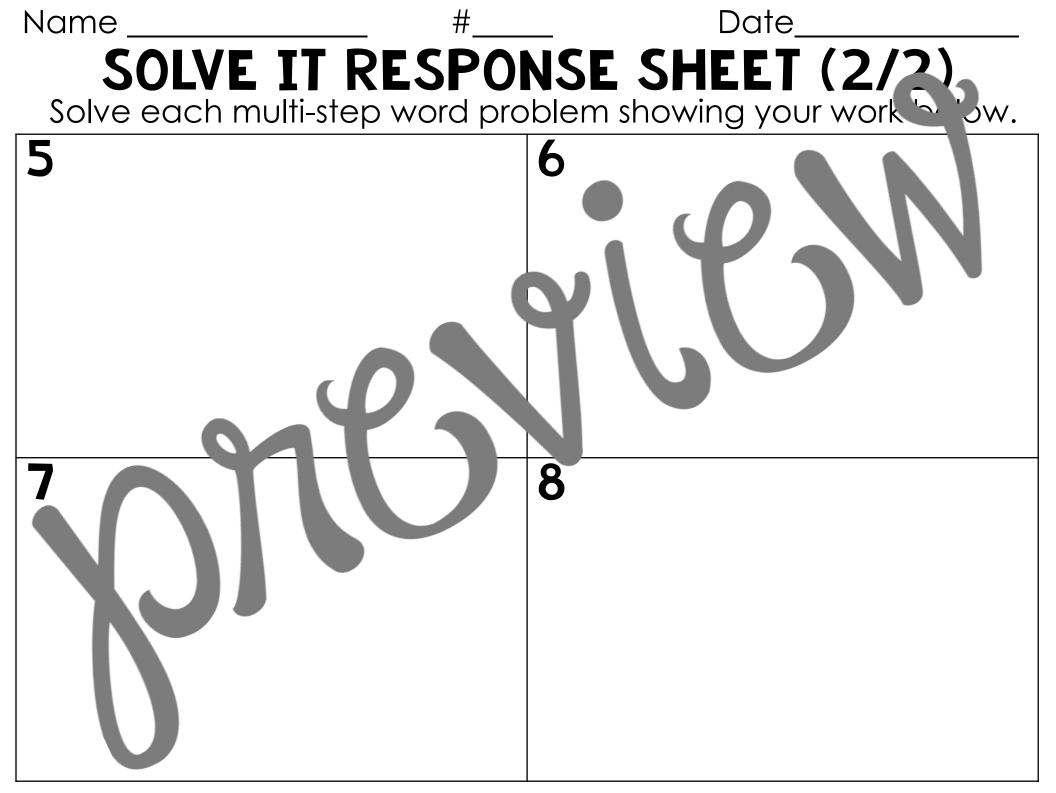
Alyssa drove 85 miles per hour for two hours, 60 miles per hour for half an hour, and 70 miles per hour for another hour. How far did she travel during this time? A ticket to a baseball game is sold for \$54. Popcorn, a hot dog, and a drink can be purchased for \$4 each. How much would it cost for two people to go to the game and each ge popcorn and a arnk?

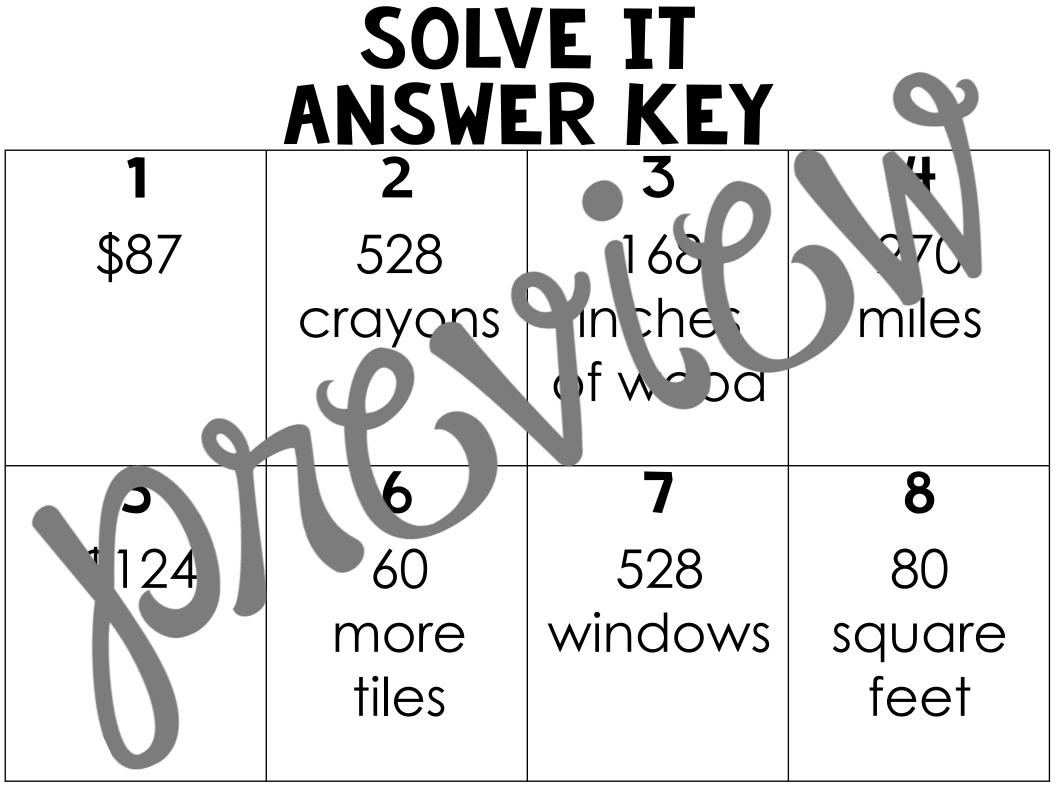
A building is 44 for eship i. Each story reso a, artment, and each applied that 4 windows. How many windows are there in the building? Payton is tiling her kitchen with 1 foot square that The kitchen is 13 foot long and 12 bet war. Scharste has put actin 91 tilet. Herv theny more tile does she hend to lay?

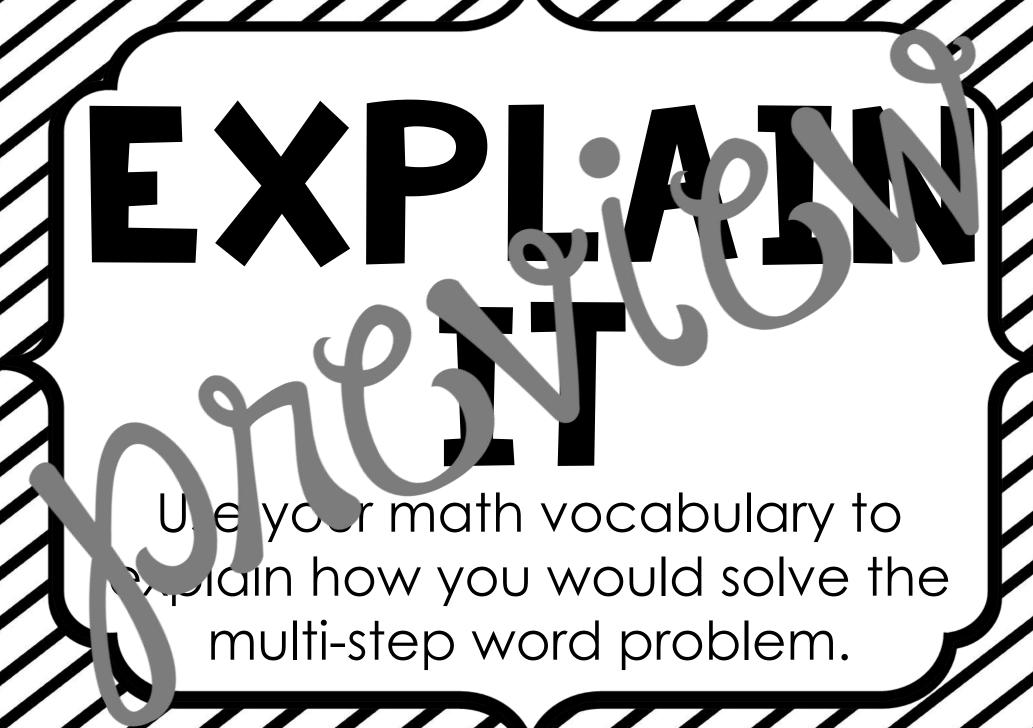
### 8

A room is 14 feet long and 16 feet wide. It has a large area rug that is 12 foot square. How many square feet of floor are not covered by the rug?









## TEACHER SUGGESTIONS EXPLAIN IT

- In this activity students are asked to explain how the would solve a rulti- ep word problem using their math receptions.
- This activity can be used in a varient of wurs:
  - Sn all group with teacher dance
  - A partner activity for practice
    - hdependently to assess

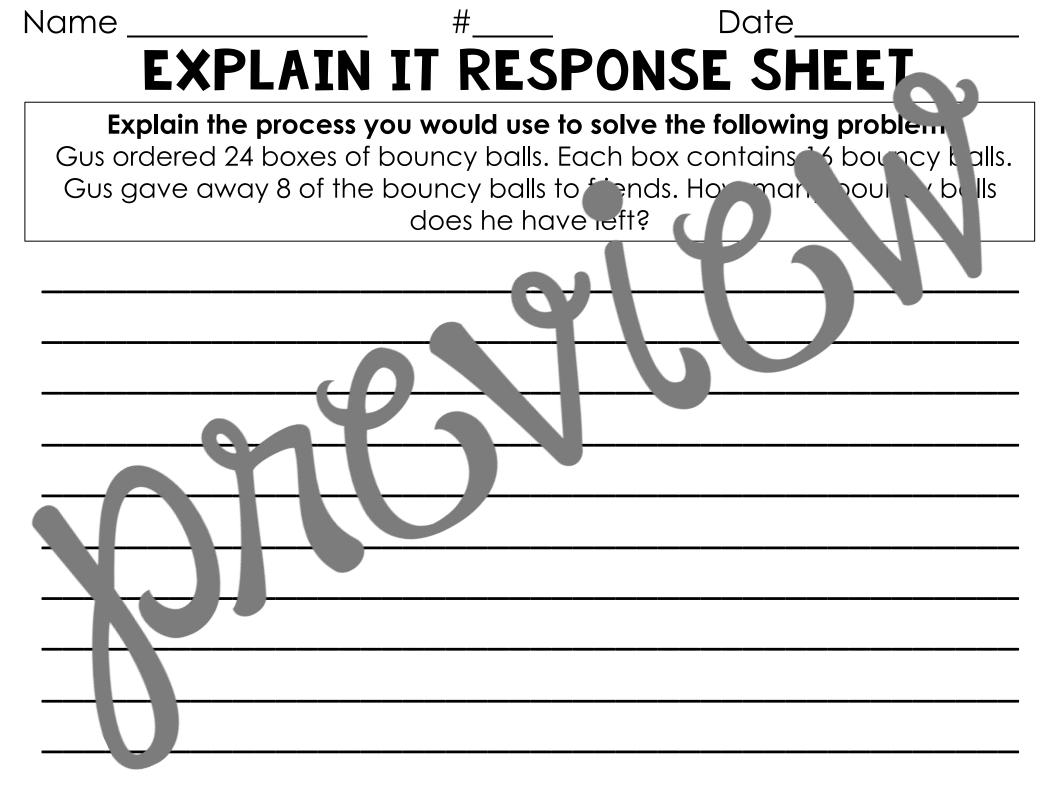
Inc uded • Prompt with

<u>Mate</u>

Recording Sheet Not Included:

ls

• Pencil



# BOA TA a game to solve multi-step word problems.

### TEACHER SUGGESTIONS BOARD GAME

- In this activity students are asked to play a board game that requires ...em to solve multi-step word problems.
- This notivity can be used in a varient cliwum:
  - Small group with teacher dance
  - A partner activity for practice
    - hdependently to assess

<u>Mate</u> <u>ls</u>

- Game Rules
- Game Board
- Problem Cards
- Die(can use regular die instead)
- Answer Key for Problem Cards
   Not Included:
- Pencil

### **BOARD GAME DIRECTIONS**

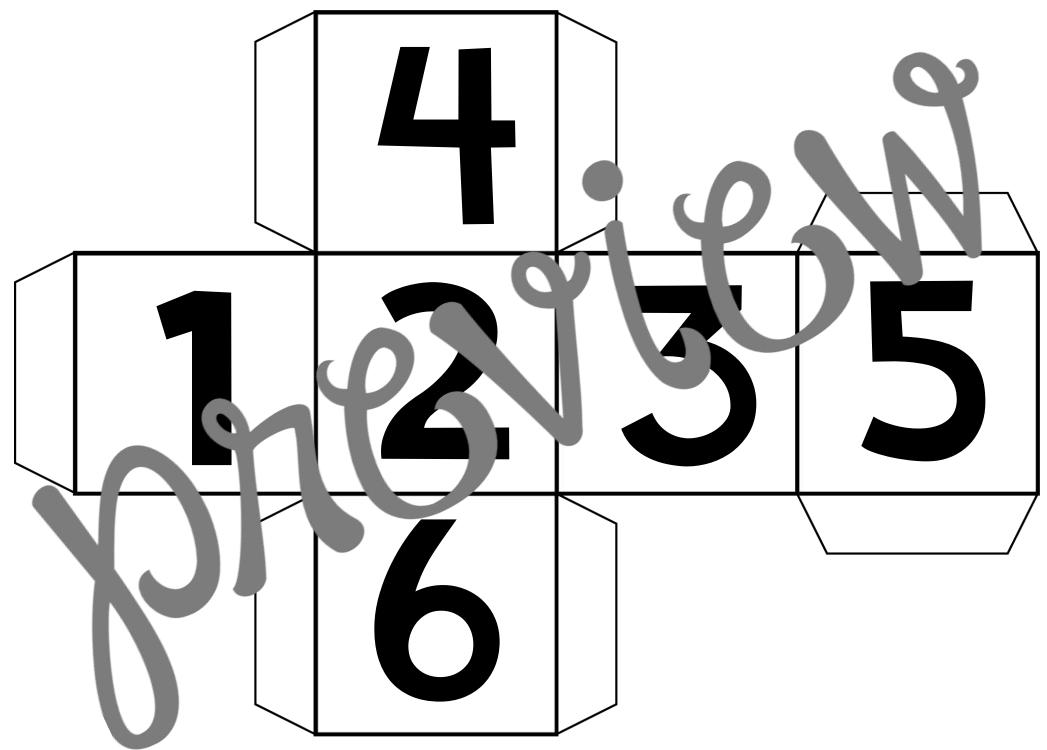
- Roll the die to determine the goes fin.
  - The player who rolls the high est number goes first and then rotate clockwise. (To her ft)
- Pull a "Problem Cord" and solve

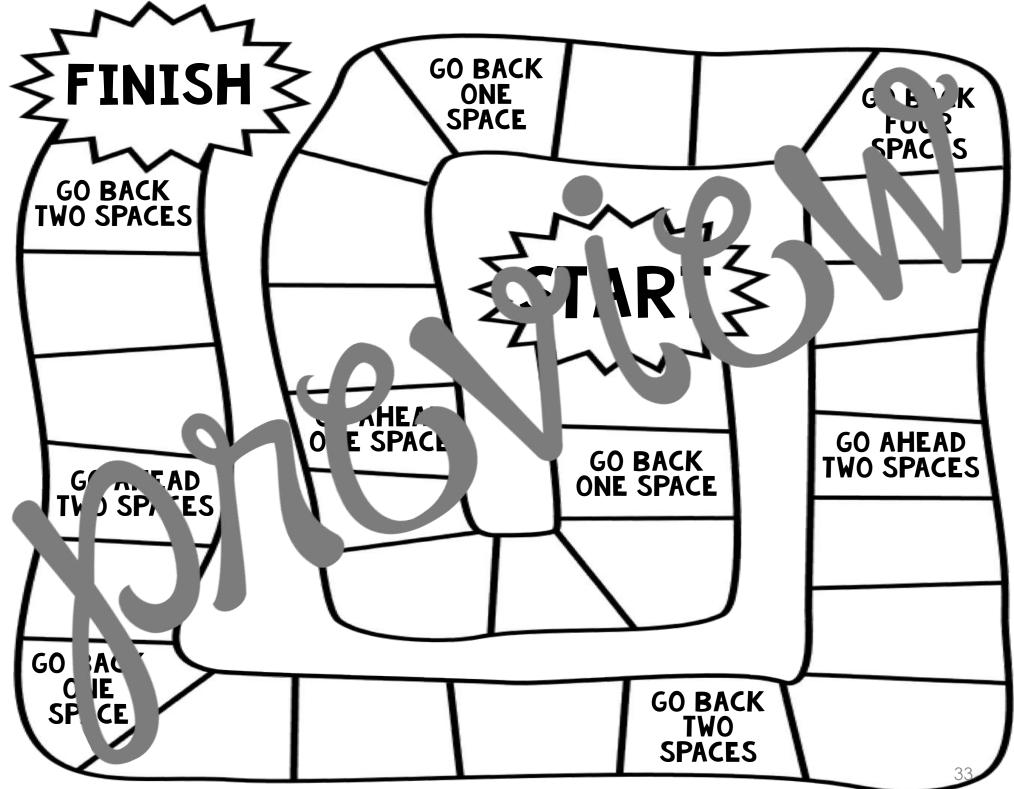
tu n.

- Another player c ecls your inswer
  - If correct, you rout he die and move
    - r ward that r any spaces.
    - If no rrest. the next player takes their

rections on the space.

Continue play until a player reaches the finish.





Jean is putting flowers together into bouquets to sell at a market. She makes 23 bouquets with 3 flowers and 28 bouquets with 5 flowers each. How many flowers did she use to make her bouquets?

Micke, is making proceedets of solution a confinition the makes 21, ink brock ets and twice as the ear bracelets as pinck racelets. How many bracelets did she make for the craft fair?

### 2

Shyanne is selling chood ate as a fundraiser for band On Monday she old 24. On Lesday she old 24. On Lesday she old 24. On A echeschy she old another O. How mony clocolates did she se over three days?

### 4

Terry is working on homework. He spent 10 minutes on spelling, 20 minutes reading, and another 25 minutes on math. If he has an hour to complete his homework, how long does he have left? Mark is baking some goodies. He bakes 2 dozen cookies and 3 dozen brownies. How many goodies does he bake?

Babs is counting the mober of crayons in an art box. She counts 12 recorayons, 16 year crayons, and wice as many wild crave is as ed claions. How mony irrayons bid she count in all?

y Dug to bo of a ozer cookie for \$6. How hich y cookies D. 1 2 buy for \$24?

### 8

Leslie has one hour until her parents pick her up. She plays a computer game for 22 minutes and then reads for another 25 minutes. How much longer does she have until she gets picked up?

#### Shelly went grocery shopping and spent \$12 on produce, \$18 on meat, \$16 in dry goods, and \$8 on dairy. She has a coupon for half off of her total purchase. How much did she spend after the coupon?

Drew in plactic ingliug aling the shore boll. He hands it four time, knews a three times as manutions as he headed it. He allowicks it four times. How many times did Drew touch the boll while juggling it?

#### 10

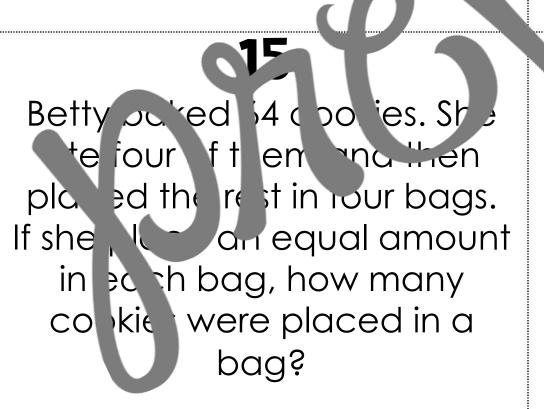
Jarrett is scanning backs for the librarian. He scans 127 books in an hour. The next hour he picks of the nacce and so its three in ests hany books as the nest hour. Fow many book did he scan a verthe two hours?

### 12

Stefan is buying a new gaming system. He spends half of his money on the console, another \$40 on a controller, and \$12 on a gaming pillow. If he started with \$200, how much money does he have left?

#### 13

Granny is selling hats and mittens. She sells 12 hats for \$7 each and 6 pairs of mittens for \$5 each. How much money did she make selling hats and mittens?



#### 14

Harry is walking laps a bund the track all week. On wichday he walks 4 laps. On Tuesday he volks twide as nony no as Monda, Ch Wealeda he valis 2 les laps non desday. Ho vinal v laps did he walk over the three days?

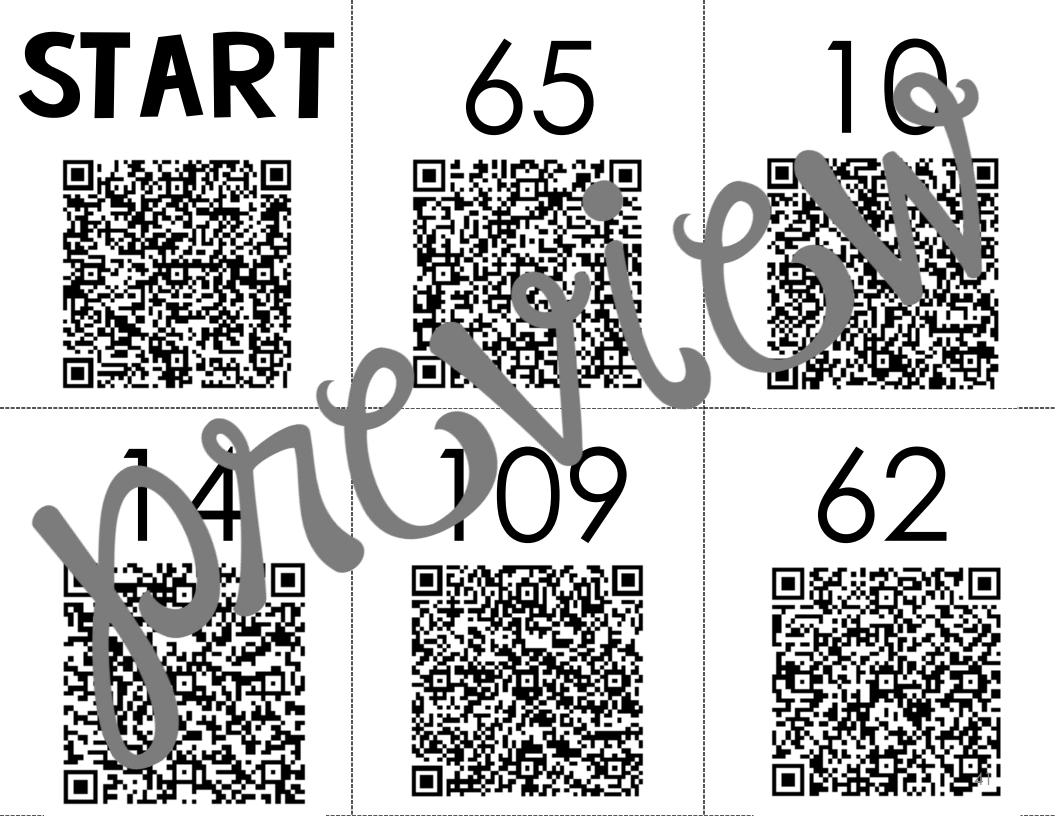
#### 16

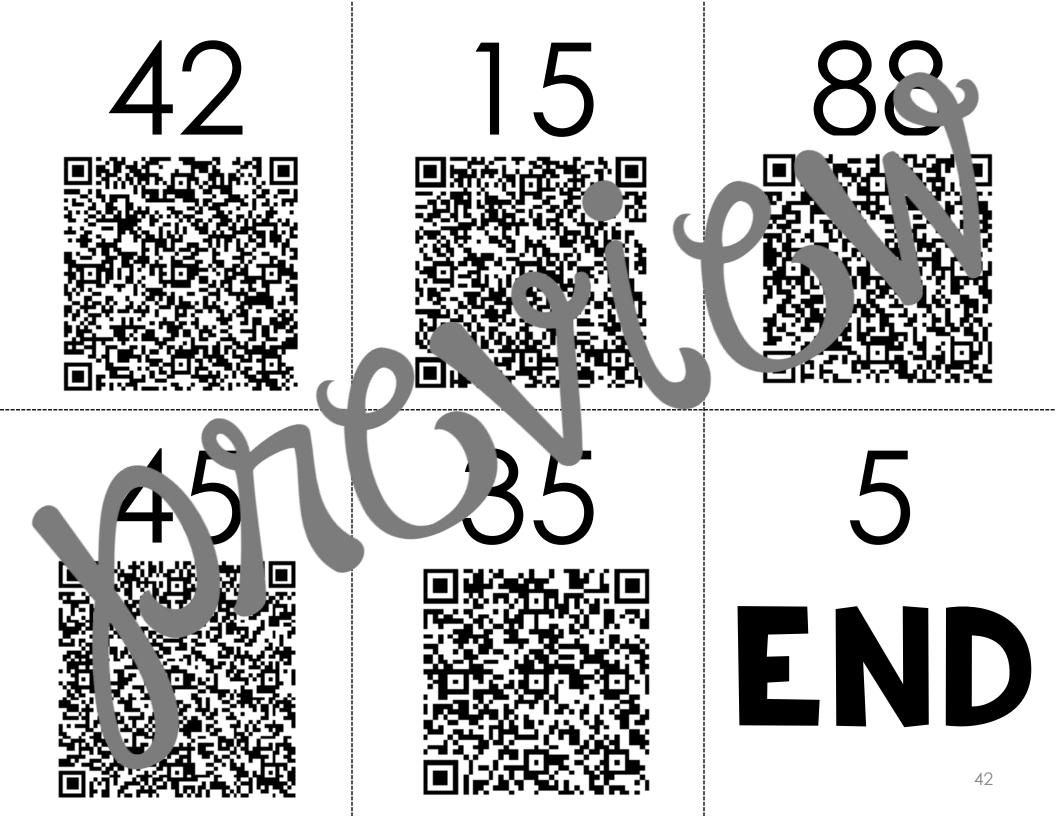
Anna is planning a trip to the beach. She budgets \$45 for gas, \$65 a night for two nights at a hotel, and \$50 for food. How much did she budget for her whole trip?

BOARD	GAME	ANSW	ER KEY
1	2	3	
209	462	63	
flowers	chocolates	bluceleis	n in D. Ə
5	6		
60	52	48	13
goodies	c a ons	cocies	minutes
9	10	11	12
\$27	-08	20	\$48
	Sooks	times	
	14	15	16
\$1'4	18	15	\$225
	laps	cookies	

he 'START" card and follow Sca The directions to use all cards stopping at the "END" card.

#### TEACHER SUGGESTIONS QR CODE • In this activity students are <u>Mate</u> asked to scan QR codes ls Inc ded: and follow the directions by Q. Cude Cards solving multi-st ap work st Included: problems A device capable of scanning QR be ued in a The activity ca Codes such as a arie / c w VS. smartphone or tablet ✓ Sr a group with acher guidance A partner activity for bractice ndependently to assess ne Fast Lane LLC





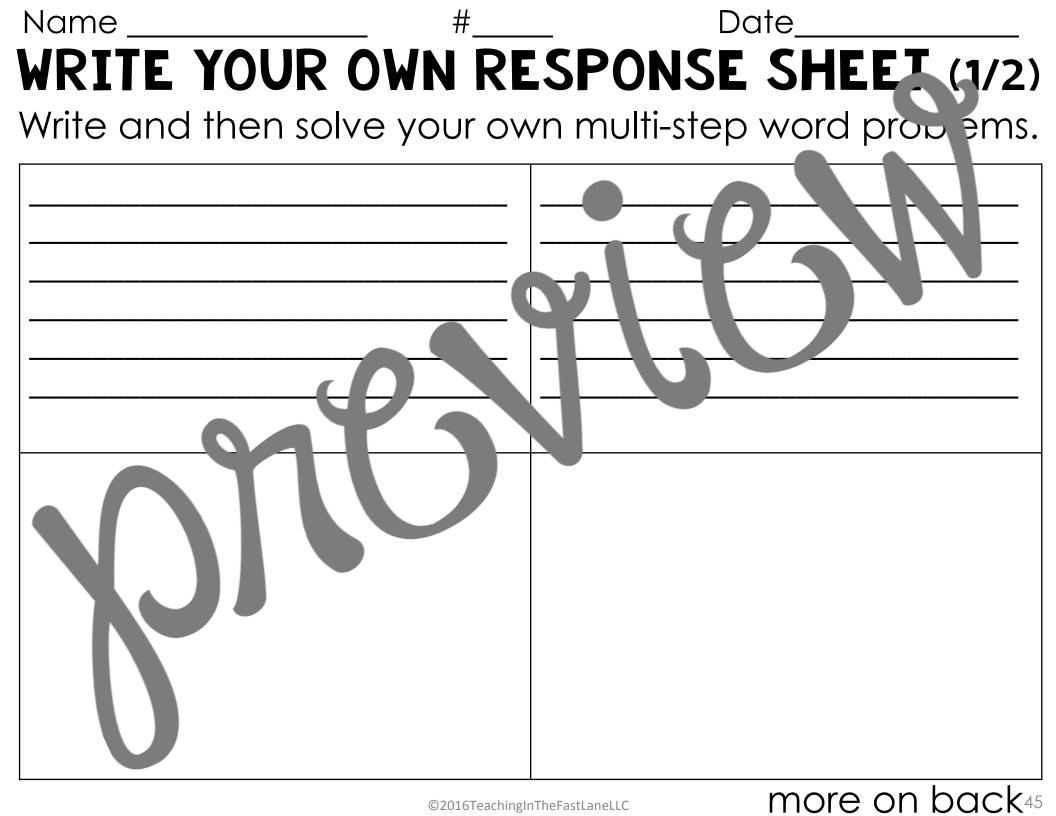


## TEACHER SUGGESTIONS WRITE YOUR OWN

- In this activity students are asked to create and so, " their own multi-dep ford problems.
- This activity conbelled a
  - Snall grou winnleacher gu donce
     anner activity for practice
    - ndependently to assess

- <u>Mate</u> Is
- Incuded • Recording Sheet Not Included:

• Pencil



Name	#	Date	
WRITE YOU	JR OWN RESF	<b>ONSE SHEE</b>	(2/2)
Write and ther	n solve your own r	nulti-step word pro	ere ere.

# Ske chout a plan to solve for cn multi-step word problem.

## TEACHER SUGGESTIONS SKETCH IT

- In this activity students are asked to sketch out a p.~ for solving each mu. step word problem
- This activity combe used a value ty of ways
  - Sr all grou which leacher
     gu donce
     anner activity for
    - practice
    - ndependently to assess

<u>Mate.</u> Is

Inc. idedWord Problems

- Pecording Shee
- Recording Sheet
- Answer Key to Compare to Sketches
- Not Included:

• Pencil

Ben is folding origami to sell at his school's market day. Today he folded 12 pieces of origami, and he plans to fold double that amount tomorrow. How many pieces of origami will Ben have if he follows his play.

There are 400 h nimes in a long Halt of the hair neo are blach. A fourth of the hair ties that the hair black are yellow. How muny of the hair ties are ot plack or yellow? Cammy is practicing for a donut eating contest. Last monitor e won a contest by eating 62 donuts. This month showor we dog 60 donuts. Next nontherhe parts to eativide us man don'ts a the list wo months combined. How han, donut does he plan to eat new month?

#### 4

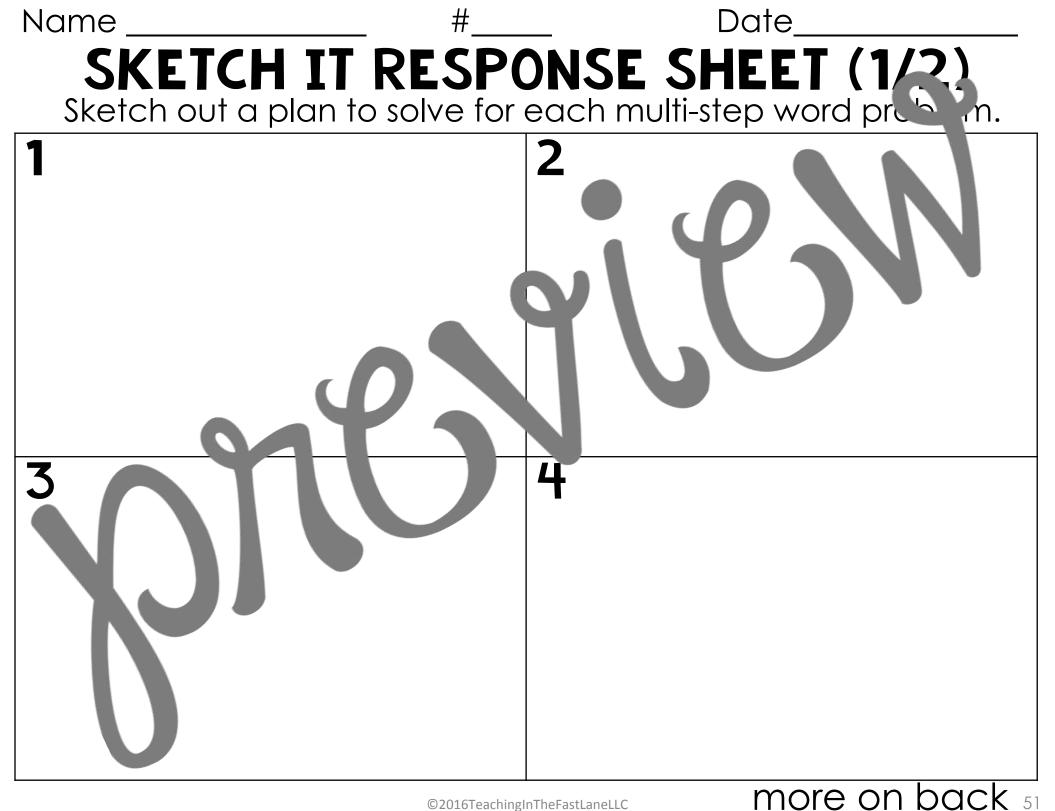
452 visitors came to the zoo for a party. Three times as many visitors came for a fundraiser. How many visitors came to both the party and fundraiser? Eric reads two pages every minute. Carl reads three pages every minute. How many more pages will Carl read in 20 minutes of silent reading than Eric? 6

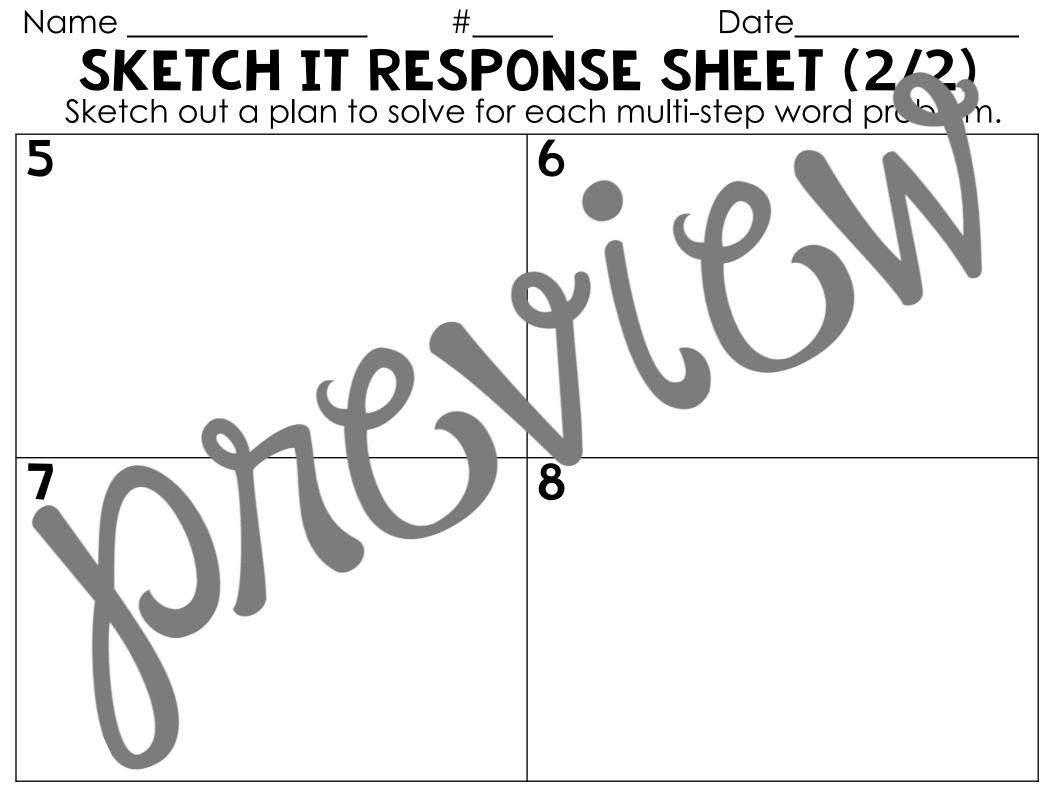
There are 18 bottler chi ail polish on a shelf. One mind of the bottles all a sinde of red. One hulf or what is eft are had of pick. You hany of he bittles a enerther a shade of region pink?

Julie Joned 7 do en cooki s In thight. After this cooled she laced them in boxes to sen and con box fits four cook es how many boxes did she fill?

#### 8

Baseball cards come in packs of 125 cards each. If Xander bought 2 packs and Jerry bought three packs, how many baseball cards do the boys have together?

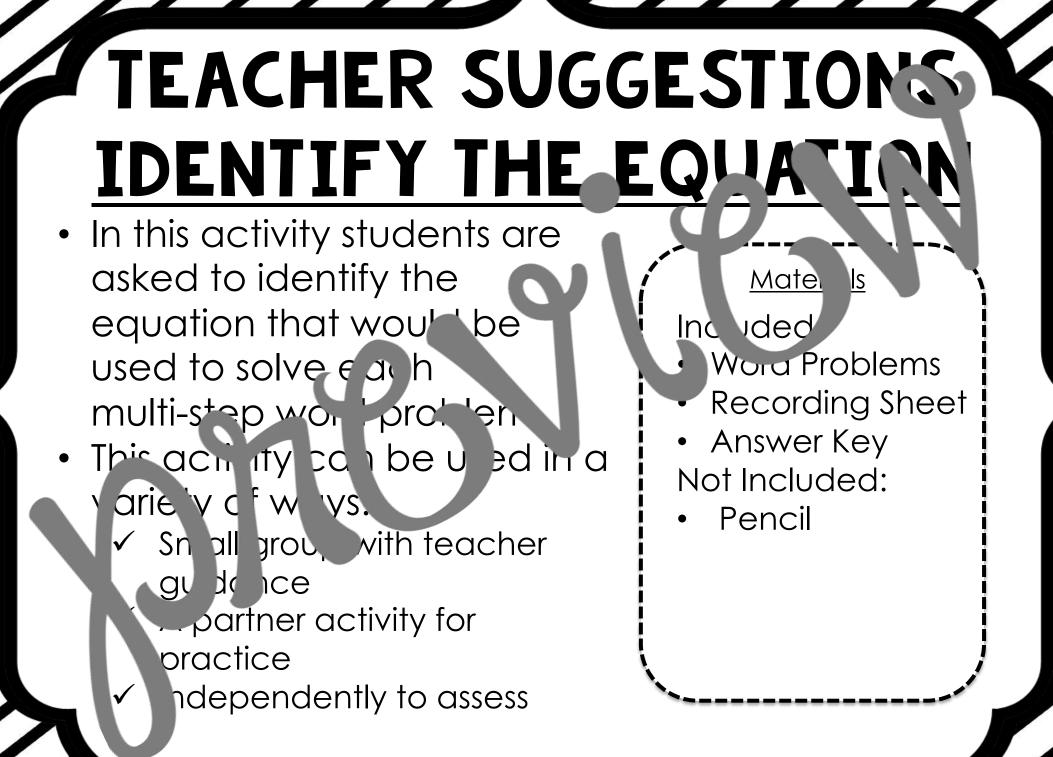






# IDENTIF UNTION nt fy me equation needed to lde we each of the multi-step word problems.

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Michael is buying candy for party favor bags. He buys two large bags for \$9 each and three small bags for \$4 each. How much did Michael spend on candy?

Kare no shooping or ne 'o nes. 'he buind skirts, and wide as many shirts as skirt. No also buys 2 pairs of plants. How many new clothing items does she buy? Zac wants to bring 5, 5cks for his class on field ac. His class has 12 k, vs end en gins. If Gelth snakkeet \$3, her much wh 7a, 5pend brinning stracks?

#### 4

A statue is 18 yards tall. Since there are 3 feet in a yard and 12 inches in a foot, how many inches tall is the statue?

I bought two bags of beads. The smaller bag had 150 beads. The larger bag had 250 beads. If I split all the beads into 5 equal piles, how many beads will be in each pil

Caihin's buyin, bithda piesen's for his three nic tes. Siespent \$14 on one, 1. On another, and \$12 on he last one. What is the avirage amount she spont on each gift? Ramona is buying birdseed. A small bag is \$2 and a large bag is \$4. Would it be less expensive to buy five small bags or two large bags?

Mr. Brooks is cleaning up his

classroom. It takes 10

minutes to det, half that

desks,

 $\mathbf{C}$ 

neto w pe 'ovi the

ve ep a d mo the floors.

ow long hid it rake him to

his classroom?

Tommy is organizing volunteers for field day. He needs 3 volunteers per hour for each of four different stations every hour for two hours. How many volunteers does Tommy need?

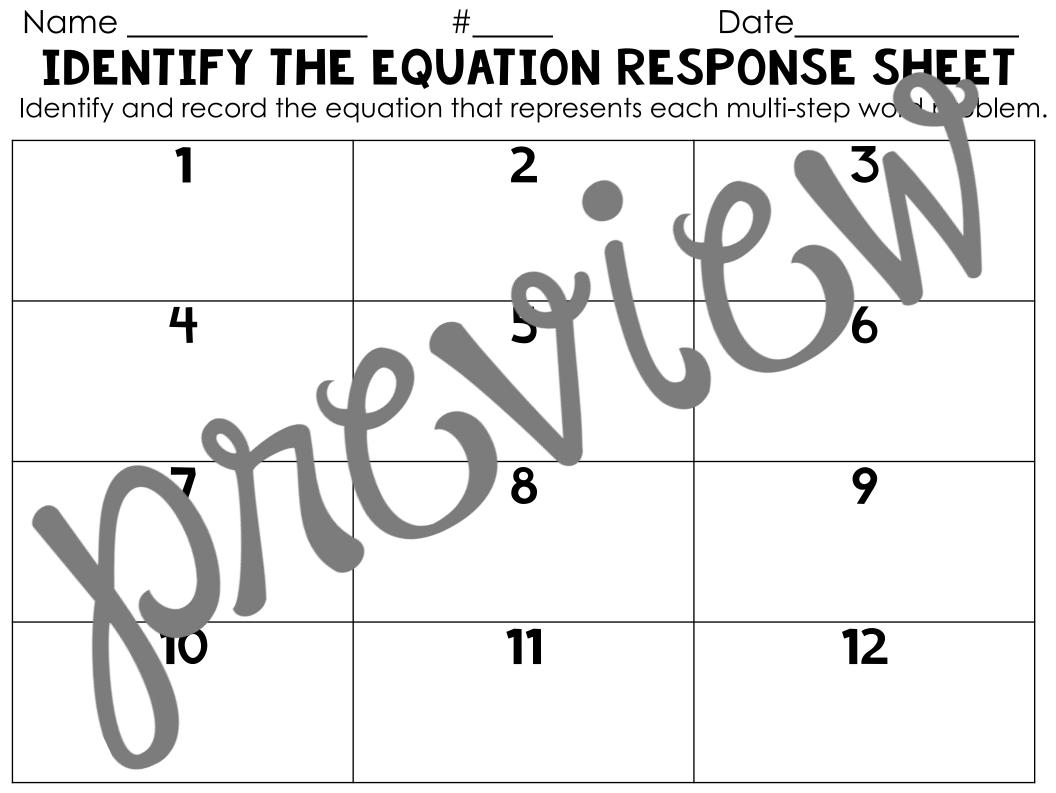
#### 10

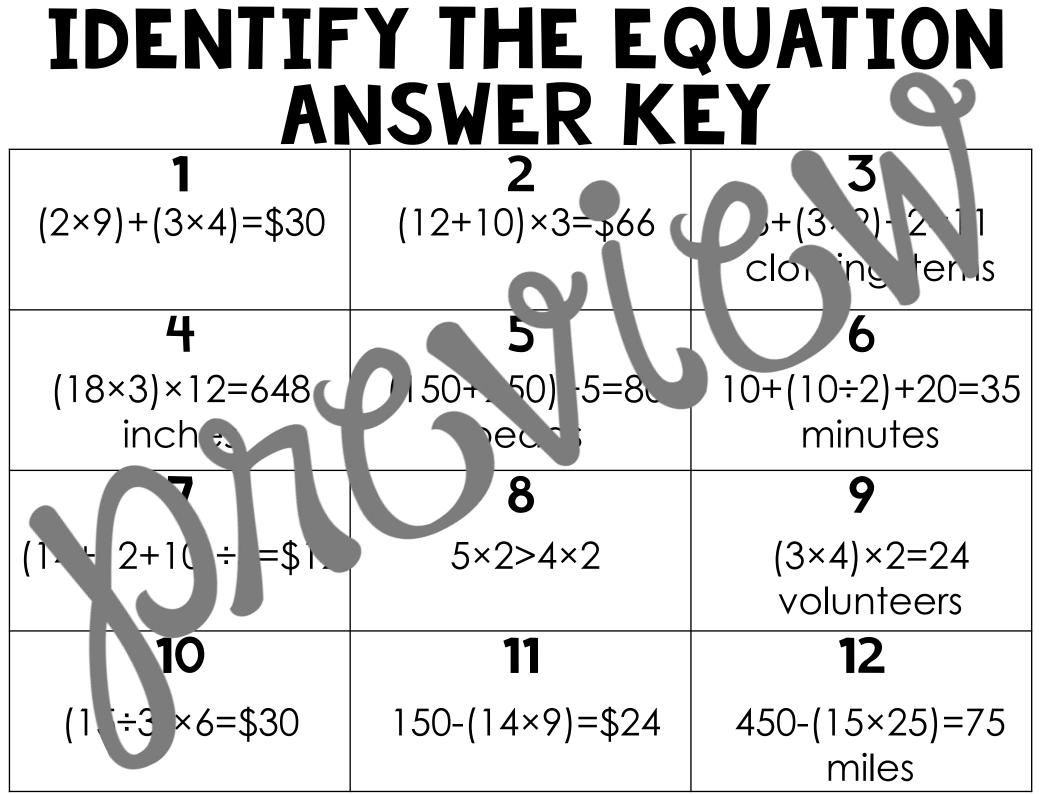
Patty is making a dreat for a dance. She plans for plying 15 feet of factic, but t is only rold by the yard life each yald is \$cherrorbod by the yard life of hore spendic the fabric for the rares?

Halles ave \$14 a month or ? months. Hossings goal is \$5. How much more honey does she read to save before han hing her goal?

### 12

A car has a 15 gallon gas tank and gets 25 miles per gallon. If a road trip is 450 miles long how much further will they need to go after the first tank of gas is used up?





Complete each multi-step word m with numbers that make ense to the problem, and then solve.

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## TEACHER SUGGESTIONS MAD NUMBERS

- In this activity students are asked to complete each word problem by including numbers that the keyses are the block in er solve.
- This notifity call be used in a nariel ric wurst
  - Sn all group with teacher .dance
  - A partner activity for practice
    - ndependently to assess

Inc ided

<u>Mate</u>

Word Problem

ls

- Cards
- Recording Sheet Not Included:
- Pencil
- Answer Key

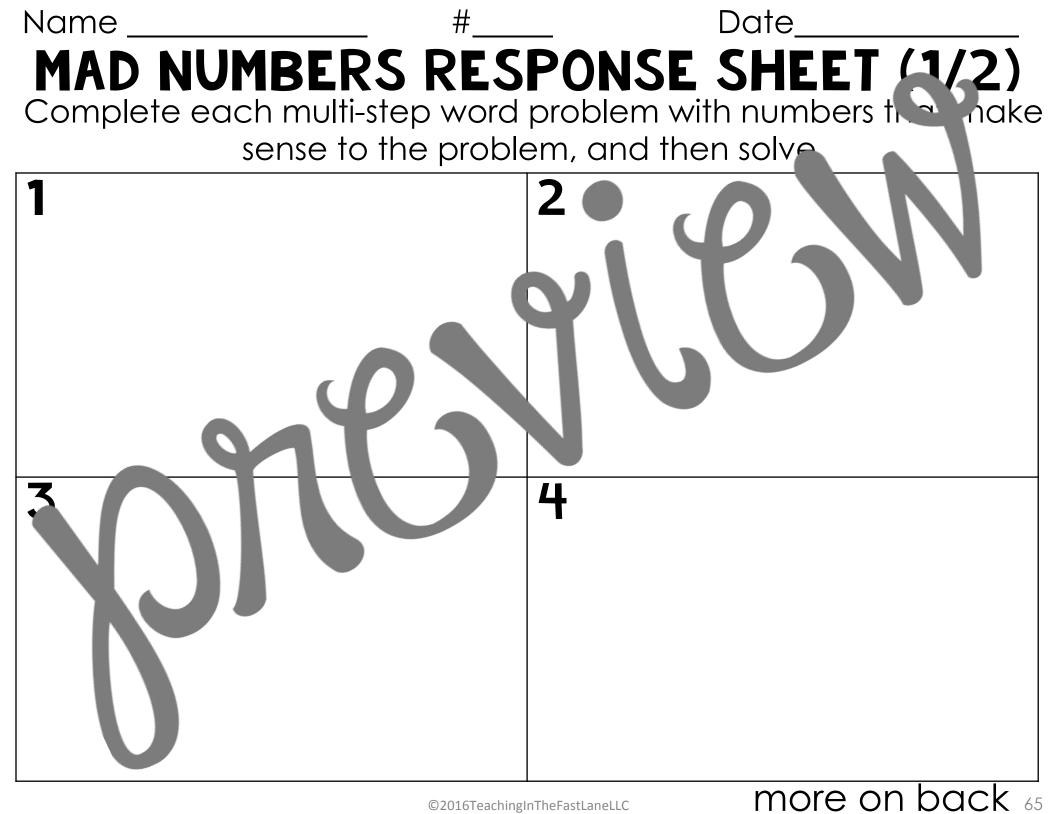
Helen's mom had twins yesterday. One baby weighed \_\_\_ lbs and \_\_\_ oz. The second baby weighed \_\_\_ lbs and \_\_\_ oz. How many ounces did the twins weigh together?

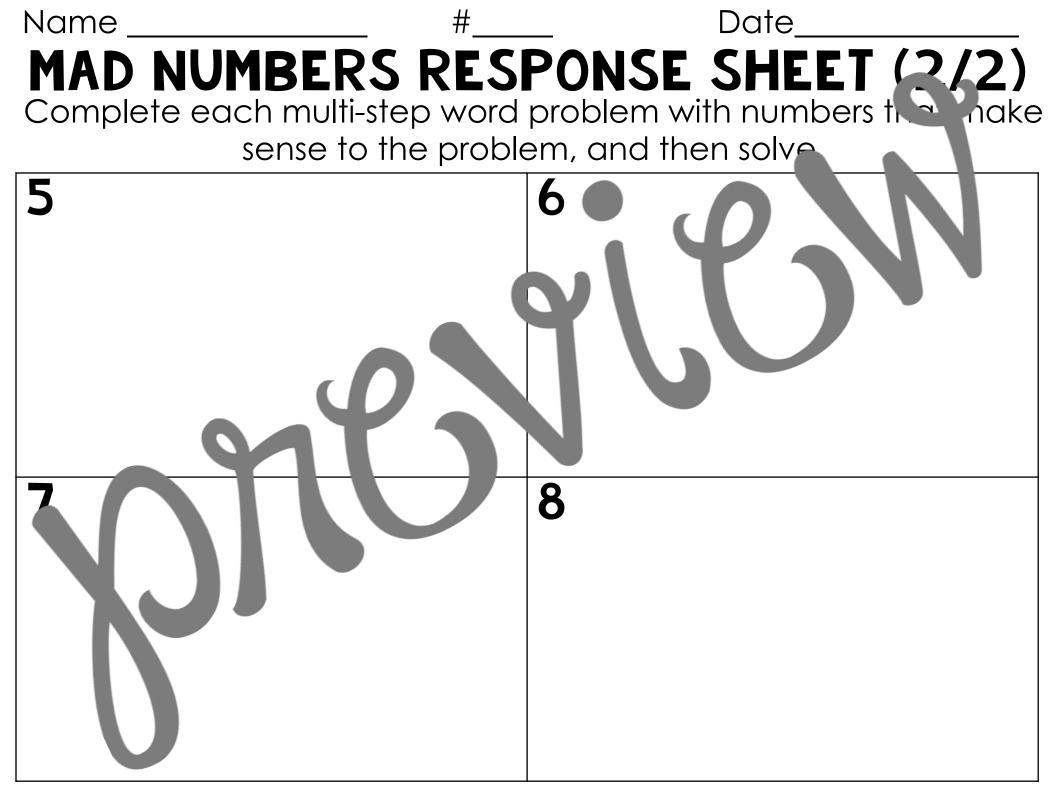
Adder buing bottles c. wore. She buys \_ cases of \_\_\_\_\_\_bottles ach and \_\_\_\_ case c \_\_\_\_bottles each. How many water bottles di Addie buy? Rider is collecting eggs from the hens his family rate. She collects \_\_\_\_\_ergs from the helphouse \_\_\_\_\_\_rgs ton the second et hous time. erg from the lathet house. How many dozin eggs did helponect?

Natalie is counting players in a a basketball tournament. There are \_\_\_\_\_ players on the court for each team at a time. If there are \_\_\_\_ teams in the tournament, how many players are there? 3 Michelle is getting ready for a school dance. She spends \_\_\_\_ minutes doing her hair, \_\_\_ minutes on make up, and twice as long getting dressed as doing her hair. How long did it take he to get ready?

Kathy went of a ball trip virh hr riend The fill day iney drage inters. The second day is, ove inters, and the hild day they drove the last inters. What is the average number of miles they drove each day? Brandon is buying crown molding for his bedruct i. His bedroom is \_\_\_\_feet long and \_\_\_feet when the trown molding costs \$ \_\_\_rendon, how much will he spend on the crown molding for his bearoom?

Mary is planting a garden. One part of her garden is \_\_\_\_feet long and \_\_\_\_feet wide. The other part is \_\_\_\_ feet long and \_\_\_\_feet wide. What is the total area of the garden?





Solve the multi-step word problems to win a game of tic tac toe against a partner.

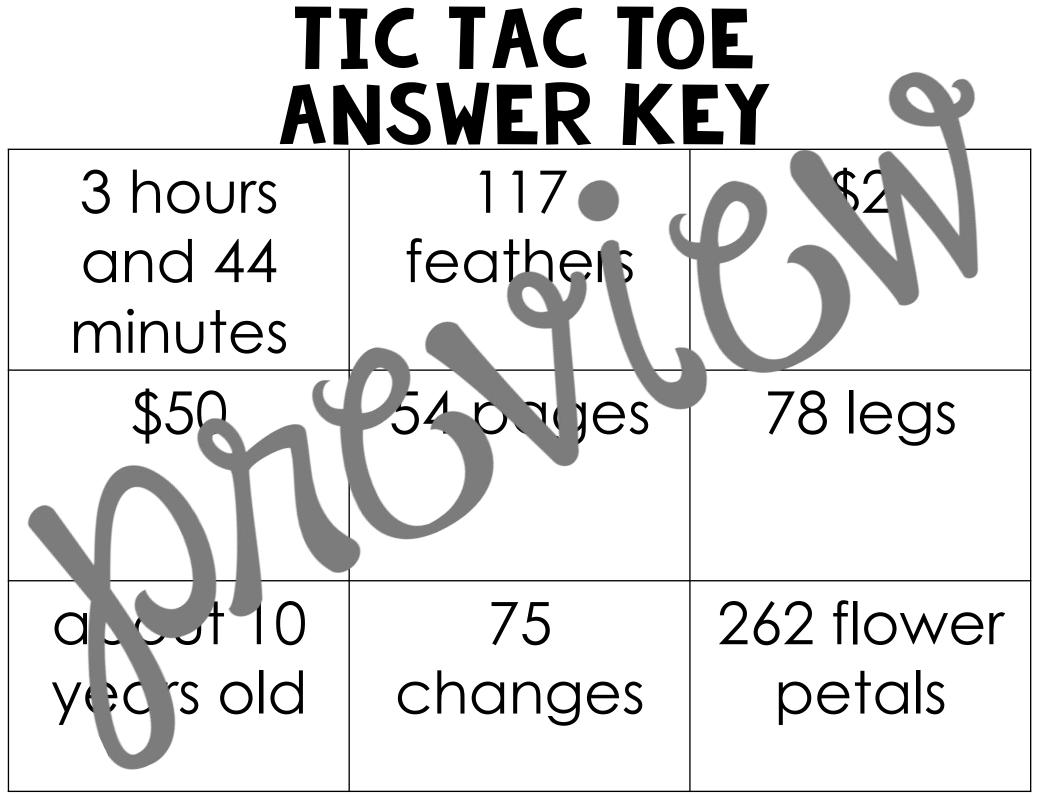
## TEACHER SUGGESTIONS TIC TAC TOF

- In this activity students are asked to play a game of ic tac toe with multi-sing wood problems.
- This activity combe used a value ty of ways
  - Sr all grou while acher gu donce A anner activity for
    - practice
    - ndependently to assess

<u>Mate.</u> Is

- Incuded Tichac Toe Board with
  - Multi-Step Word Problems
- Answer Key Not Included:
- Pencil

Partner #1	Partner #2	
<b>MULTI-STI</b> Solve the multi-step word	<b>EP PROBLEM TI</b> problems to win a game of tic	c tac toe against proper.
Robert is playing video games. He plays one game for 127 minutes and another game for 97 minutes. How many hours and minutes did Robert play video games for?	Kelly is counting the feathers on a chick. He counts 231 total feathers. If each wire las 57 feathers, how many feathers are on the body of the chick?	Lauren is trying to buy sckets for an comin face She anouy in tiduc corpasses or \$89 echic a corp packag or \$2 Thow tuch noney will to sa buying the pickage?
Mia is buying new school clothes. She spent half of har money on a pair of jeans \$10 on a shirt, and \$1000000000000000000000000000000000000	nnay to real two blocks in enex. Pek. The first block in 156 pages indice second book is pages indice second book is pages ong. If she plans read ince same number pages each day, how many pages does she need to read each day?	Jacob is counting the legs in a barn yard. There are 3 people, 7 sheep, 4 cows, 12 chickens, and a cat. How many legs should he count?
Nate trying to gu out the averaging includents in his club. On the 20 total stude its in are 9 years old, 9 are ten years old, and one is 11 years of a student in Nate's class rounded to the nearest whole number?	Sam is trying to fix up his paper before he turns it in. He makes 3 revisions per minute for 20 minutes. He also makes 15 edits. How many changes did Sam make?	Val is picking flowers from her backyard. She finds thirteen flowers with four petals each and 70 flowers with three petals each. How many petals are on all the flowers Val picked?
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Name

#### Date **TEST BRIDGE QUESTIONS**

1. Peter ordered 24 boxes of clay. Each box has 16 individual packages of clay. Peter used 8 of these packages for a project. Which equation can be used to find p, the total number of packages of clay that Peter did not use?

- p=(24+16)-8a.
- b. p=(24×16)-8
- p=(24-16)÷8 C.
- $p=(24 \times 16)$ d.

3. Ninc  $\sim$  124 crc ons. -Sheud 20 craons to ate a ulpture. -She used the constant of the grayon. rayons sed the san numer of cray rayon.

Whic num 0.

cr on?

c. (24-2 ×4=n

24 0)×4=n

gian

a.

melt a n into grant b make each giant equation combe used to find n, the

ons she used the make each

b. (124-20)÷4=n d. (124+20)÷4=n 2. Angie is buying cookies fo harty. re wi be and 17 chine at the prty. Ce lar to 13 ac have a cookies or act adult ar. co kie nr each child. The anght cookies ed :h packac What is e least nu er o. ∶kag∈ of o es ngie will ed to buy i rder have pokies for the people ending the partv? Jgh

7, b car e ( ×3+./)÷8=7 a 28, be se (13×17+3)÷8=28 b. 80, because (13+17)×8÷3=80 C. 8, because (13+17×3)÷8=8

4. The temperature in Austin was 45 degrees Fahrenheit at 7 a.m. For the next five hours the temperature decreased 5 degrees each hour. What equation can be used to find t, the temperature at 11 p.m.?

a. t=45-5(11-7) b. t=45-5(11+7)c. t=45÷5(11-7)

d. t=45+5(11-7)

## TEST BRIDGE ANSWER KEN

13 ac

a

b.

backac

Jgh

2. Angie is buying cookies for

each child. The

o es ngie will

t=45-5(11-7)

t=45-5(11+7

 $t=45\div5(11-7)$ 

t=45+5(11-7)

have a cookies or act adult ar.

What is e least nu

pokies for the people

7, b calle ( ×3+./)÷8=7

28, b e (13×1/+3)÷8=28

80, because (13+17)×8÷3=80

 Peter ordered 24 boxes of clay. Each box has 16 individual packages of clay. Peter used 8 of these packages for a project.
 Which equation can be used to find p, the total number of packages of clay that Peter did not use?

ate a

rayons

er of cray

equatic be used to find n, the

rayon.

melt a

ons she used the make each

ulpture.

(124-20)÷4=n

24+20)÷4=n

ninto Jant

b make each giant

n = (24 + 16) - 8

p=(24×16)-8

p=(24-16)÷8

3. Ninc 124 crc ons.

-Sheud 20 craons to

-She used the of the crayon.

0)×4=n

×4=n

sed the san hum

 $p = (24 \times 16)$ 

0.

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24

24-2

b.

C.

d.

Whic

num

post

a.

C. (

8, because (13+17×3)÷8=8
4. The temperature in Austin was 45 degrees Fahrenheit at 7 a.m. For the next five hours the temperature decreased 5 degrees each hour. What equation can be used to find t, the temperature at 11 p.m.?

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