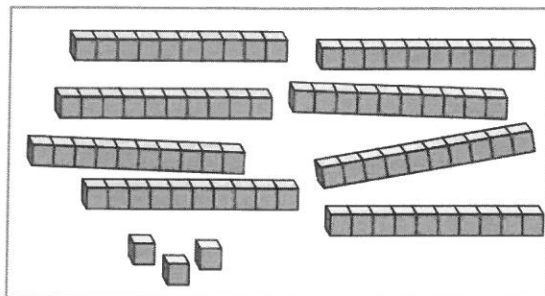
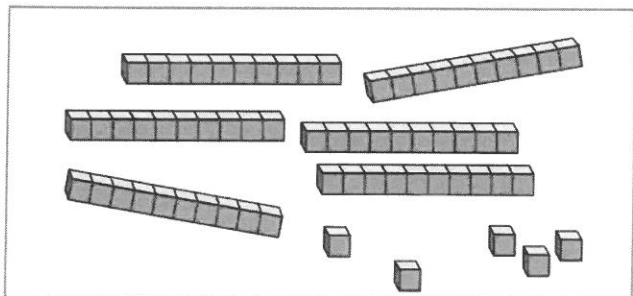


Week of	4/6/2020
Grade Level	3rd Grade Mathematics
Day 1	<u>Skill Practice (Time Expectation: 30 Min)</u> <ul style="list-style-type: none">• Addition - Working with the standards algorithm (pages 1 & 2)• Enrichment (page 3)
Day 2	<u>Rich Task (Time Expectations 30 Minutes)</u> <ul style="list-style-type: none">• Comparing Fractions
Day 3	<u>Game/Activity:</u> <ul style="list-style-type: none">• Multiplication Squares Game

Addition: Working with the standard algorithm (composing hundreds)

Look at these two pictures of blocks. What number does each picture represent?



Draw the tens blocks and ones blocks as they would appear if the blocks were added together.

Circle the 10 tens blocks that you could regroup as 1 hundreds block.

What is the total?

Follow these steps of the standard addition algorithm to add the two stacks of blocks.

First add the ones.

	H	T	O
		8	3
+		6	5
		8	8

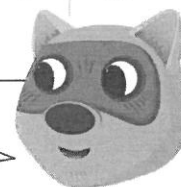
Then add the tens.

	H	T	O
	1	8	3
+		6	5
		4	8

Then add the hundreds.

	H	T	O
	1	8	3
+		6	5
	1	4	8

14 tens is equal to 1 hundred and 4 tens.



Addition: Using the standard algorithm with three-digit numbers

Use this chart to answer Questions 1 and 2.

Number of Apples Sold at a Farmer's Market						
	McIntosh	Gala	Jonagold	Empire	Cortland	Honeycrisp
September	523	295	429	325	518	73
October	329	362	347	291	435	296

1. Estimate the total number of different types of apples sold during September and October. Then use the standard addition algorithm to calculate the exact sum.

<p>a. McIntosh</p> <p style="text-align: center;">H T O</p> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> $\begin{array}{r} \\ + \\ \hline \end{array}$ </div>	<p>b. Jonagold</p> <p style="text-align: center;">H T O</p> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> $\begin{array}{r} \\ + \\ \hline \end{array}$ </div>	<p>c. Cortland</p> <p style="text-align: center;">H T O</p> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> $\begin{array}{r} \\ + \\ \hline \end{array}$ </div>
<p>d. Gala</p> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> $\begin{array}{r} \\ + \\ \hline \end{array}$ </div>	<p>e. Empire</p> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> $\begin{array}{r} \\ + \\ \hline \end{array}$ </div>	<p>f. Honeycrisp</p> <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> $\begin{array}{r} \\ + \\ \hline \end{array}$ </div>

2. Calculate how many **McIntosh** and **Gala** apples were sold in total in each month.

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Addition: Solving word problems

Solve each problem. Show your thinking.

- a. There are 86 girls and 75 boys in Grade 3. How many students are there in total?

students

- b. Matthew picks 268 berries on Day 1. On Day 2 he picks 37 more berries than on Day 1. How many berries did he pick in total?

berries

- c. There are 467 visitors to a library over three days. 168 people visit on Monday and 113 visit on Tuesday. How many people visit the library on Wednesday?

visitors

- d. There are 94 fewer people in the small swimming pool than the large one. There are 150 people in the large swimming pool. How many people are in the small swimming pool?

people

- e. Amber bakes some cupcakes for a bake sale. On Monday she bakes 68 and on Tuesday she bakes 84. How many cupcakes did she bake?

cupcakes

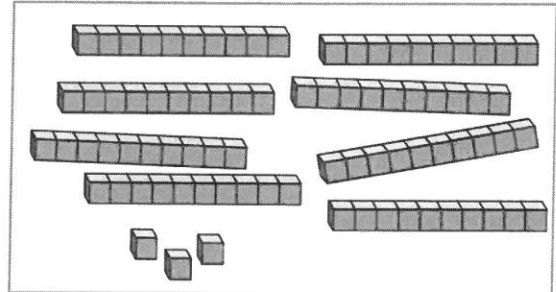
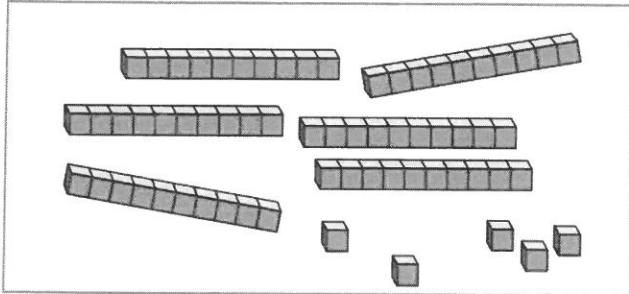
- f. On Thursday, 347 students walked to school. On Friday, 54 more students walked to school than on Thursday. How many students walked to school on Thursday and Friday in total?

students

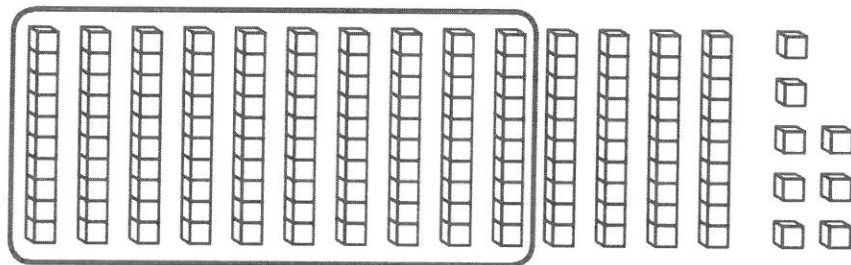


Addition: Working with the standard algorithm (composing hundreds)

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Draw the tens blocks and ones blocks as they would appear if the blocks were added together.



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What is the total?

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First add the ones.

	H	T	O
		8	3
+		6	5
<hr/>			8

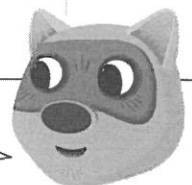
Then add the tens.

	H	T	O
	1	8	3
+		6	5
<hr/>			8
		4	8

Then add the hundreds.

	H	T	O
	1	8	3
+		6	5
<hr/>			8
	1	4	8

14 tens is equal to 1 hundred and 4 tens.



Addition: Using the standard algorithm with three-digit numbers

Use this chart to answer Questions 1 and 2.

Number of Apples Sold at a Farmer's Market						
	McIntosh	Gala	Jonagold	Empire	Cortland	Honeycrisp
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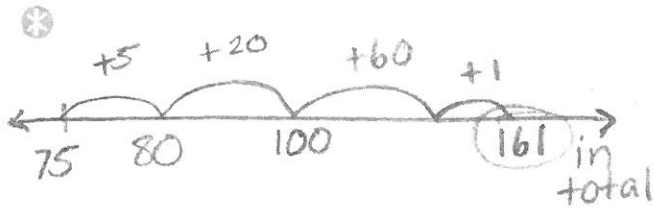


Addition: Solving word problems

* Answers will vary.

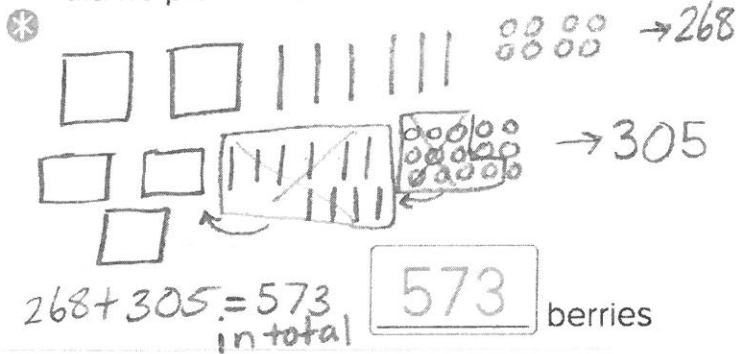
Solve each problem. Show your thinking.

- a. There are 86 girls and 75 boys in Grade 3. How many students are there in total?

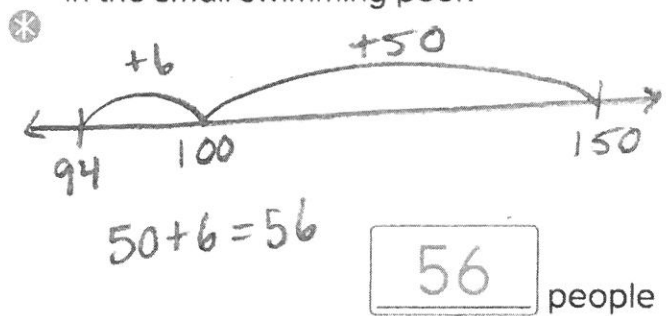


161 students

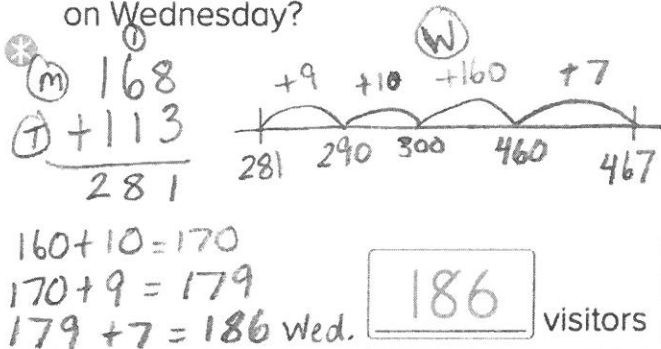
- b. Matthew picks 268 berries on Day 1. On Day 2 he picks 37 more berries than on Day 1. How many berries did he pick in total?



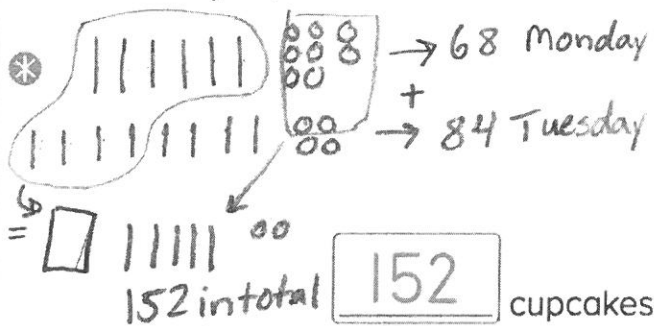
- d. There are 94 fewer people in the small swimming pool than the large one. There are 150 people in the large swimming pool. How many people are in the small swimming pool?



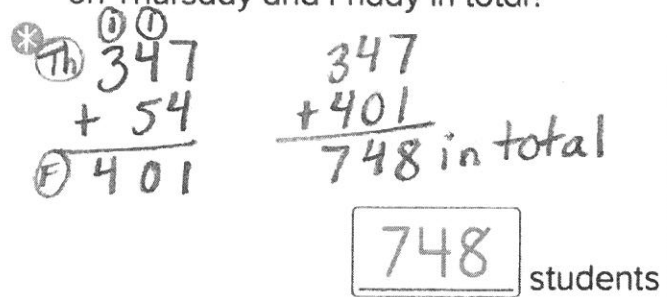
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- f. On Thursday, 347 students walked to school. On Friday, 54 more students walked to school than on Thursday. How many students walked to school on Thursday and Friday in total?



Comparing Fractions

Which colors have the same number of counters?

- $\frac{1}{3}$ of the total is red.
- $\frac{1}{4}$ of the total is blue.
- After removing the red and blue counters, $\frac{1}{5}$ of the remaining counters are green.
- The last counters are yellow.
- There are 36 counters in total.

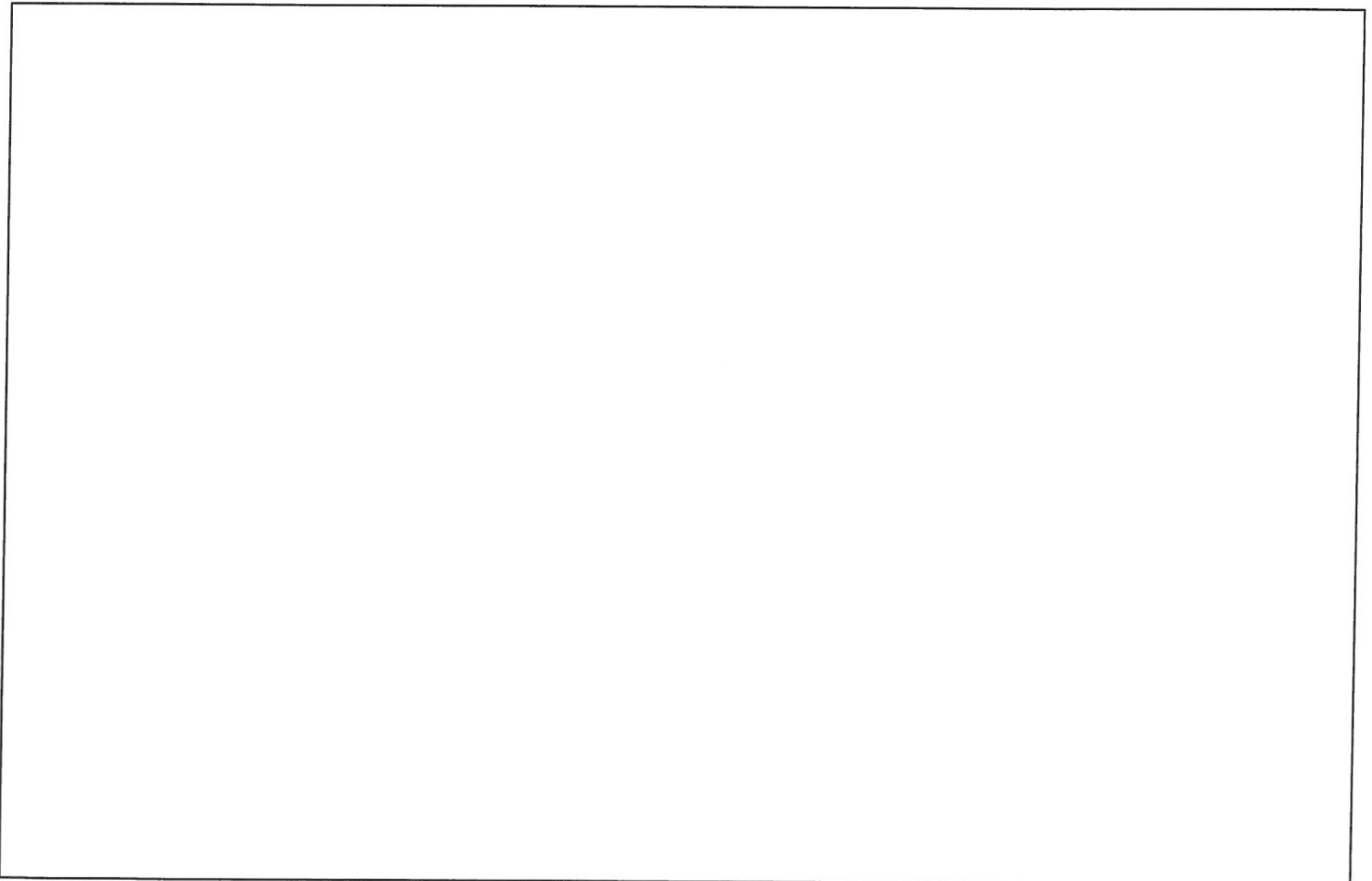
Think about how you can organize the information to help you answer the questions.

Could drawing a picture help you find the solution?

Are there equations you could write?

Do you have items around the house that could represent the counters?

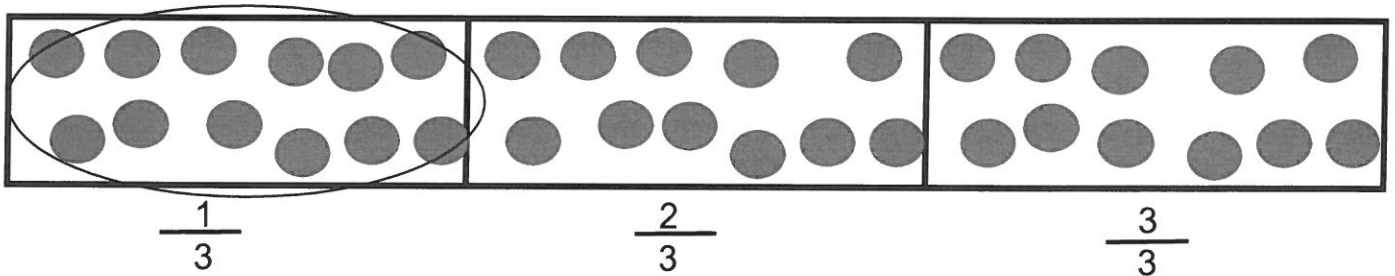
Show your thinking in the box.



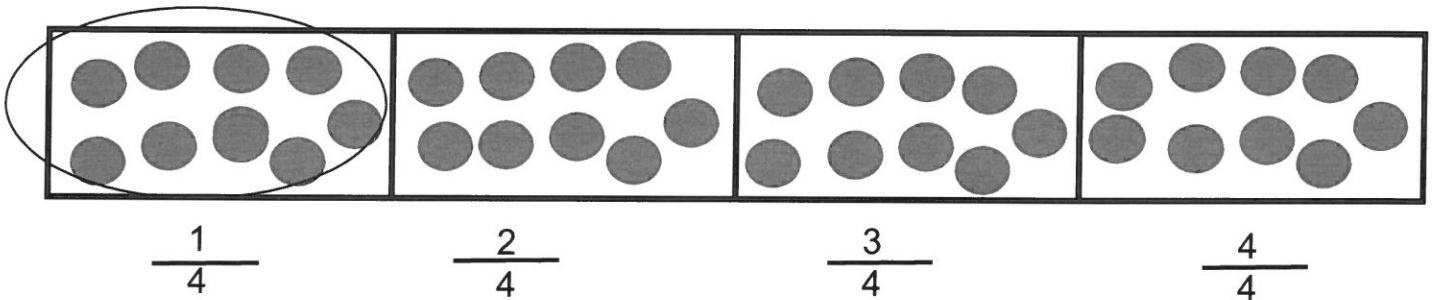
Comparing Fractions Answer Key

There are 12 red, 9 blue, 3 green, and 12 yellow counters.

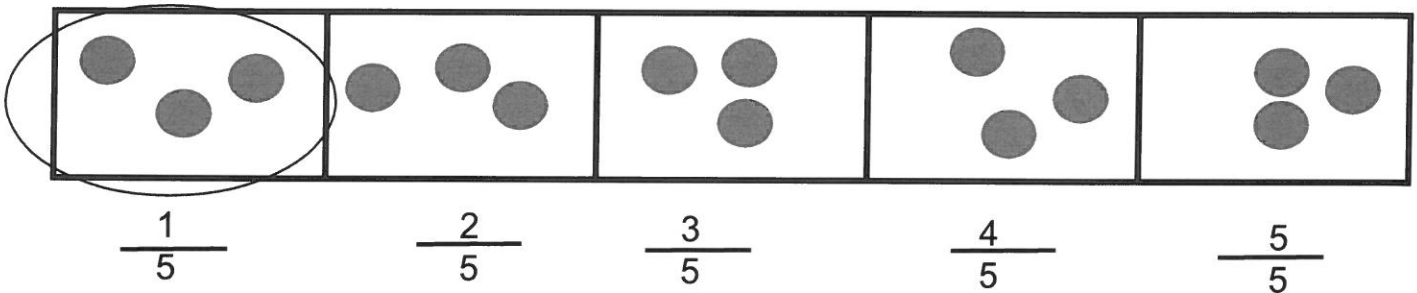
$\frac{1}{3}$ of the counters are red. To find red I will divide my 36 counters into 3 equal parts to show thirds. There are 12 red counters.



$\frac{1}{4}$ of the counters are blue. To find blue I will divide my 36 counters into 4 equal parts to show fourths. There are 9 blue counters.



After removing the red and blue counters there are 15 counters left. $36 - 12 - 9 = 15$
To find green I will divide my 15 counters into 5 equal parts to show fifths. There are 3 green counters.



After removing the green counters there are 12 counters remaining. $15 - 3 = 12$
These counters are yellow.

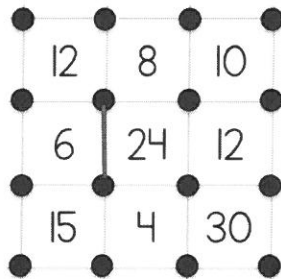
Multiplication SQUARES

How to Play

Object of the Game: To be the player who captures the most squares.

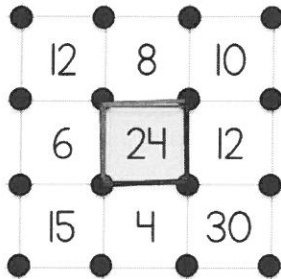
Playing the Game:

1. Each player rolls one dice. The player with the highest roll goes first.
2. The player rolls both of the dice on the table and multiplies the two numbers together. For example, if the player rolls 6 and 4, he/she multiplies 6 and 4 to get 24.
3. The player looks for the product of the two dice on the squares board, and draws ONE line by connecting any two dots that are surrounding that number, as shown below. The player's marker is used to draw the line between the dots.



For a roll of 6 and 4, the player may find one of the 24s on the squares board. The player may connect any two dots on any side surrounding the 24

4. After the player draws his/her line, that player's turn is over and the next player's turn begins.
5. Players are always striving to draw a line that will complete a square. When one player draws a line that completes a square, that player colors in the square with his/her marker and gets to take another turn with the dice.



The player with the green marker drew the top line that completed the square around the 24 and colored the square green to show that he captured that square.

Note: The player with the green marker could have rolled a product of 8 (above the 24). Because the player's line on the 8 would have completed the 24 square, he still would get to capture the 24 square.

6. If a player rolls a product that has no more available lines left on the board, the player's turn is over and play continues with the next player.
7. The game ends when all dots on the board have been connected (or when the teacher calls time). The player with the most captured squares is the winner.

Multiplication

S Q U A R E S

4	10	24	3	12	4	25	2	15	20
20	30	36	8	15	5	18	30	12	9
18	5	1	24	20	25	6	1	24	8
12	16	25	6	36	3	36	5	4	24
2	9	24	18	12	8	10	4	15	12
5	15	4	30	6	24	12	2	18	3
8	20	36	5	15	4	30	1	3	12
24	6	20	2	18	25	15	6	20	10
3	30	10	30	15	9	6	5	18	4
12	5	16	24	8	3	30	12	10	16

Who will capture the most squares?

Week of:	4/13/2020
Grade Level:	3rd
Day 1	<ul style="list-style-type: none"> ● Skill Practice and Hands-on Math: Problem Solving 1 & 2 <ul style="list-style-type: none"> ○ Scaffolds- Multiplication Chart ○ Extensions- Representation Chart <ul style="list-style-type: none"> ■ Pick one problem to represent on the chart ● 30-45 minutes
Day 2	<ul style="list-style-type: none"> ● Rich Task: Thinking Task #1-2 <ul style="list-style-type: none"> ○ Scaffolds- Representation Chart & Multiplication Chart ○ Extensions Thinking Task #3-4 ● 30-45 minutes
Day 3	<ul style="list-style-type: none"> ● Fluency Game: Practicing 9s Facts Game Board <ul style="list-style-type: none"> ○ Scaffolds: Building Down from a Known 10s Fact ○ Extensions: 9s Challenge ● 30 minutes (+ with extension)

Mixed multiplication and division word problems

Grade 3 Math Word Problems Worksheet

Read each question. Answer in a full sentence!

1. Your class is having a pizza party. You buy 5 pizzas. Each pizza has 4 slices. How many slices is that altogether?

2. Beth has 4 packs of crayons. Each pack has 10 crayons in it. She also has 6 extra crayons. How many crayons does Beth have altogether?

3. Ted has 15 candy bars. He wants to put them into 5 bags, and tries to put the same number of candy bars in each bag. How many candy bars go in each bag? Are there any candy bars leftover?

4. A candy store has 6 boxes of chocolates. Each box has 500 pieces. How many pieces are there altogether in the 6 boxes?

5. You want to share 34 pencils among 6 friends. How many would each friend get?

4

Word problems

Solve each word problem. Show your thinking.

a. Hiro's dad is laying square tiles in a rectangular courtyard. Eight tiles will fit along one side and 9 tiles will fit along the length. How many tiles will he need?

 tiles

b. A rectangle has an area of 36 sq units. How many different pairs of dimensions will equal this area?

 pairs

c. A large painting measures 4 feet by 3 feet. How much area will it cover on a wall that measures 5 yd by 3 yd?

 ft²

d. Mrs. Garcia is tiling a rectangular table top. It fits 16 square tiles along one side and 8 tiles along its width. The tiles cost \$8.40 a box. How many tiles does she need?

 sq tiles

e. Mrs. Wilson shared 63 stickers equally among 4 girls and 5 boys. How many stickers were in each share?

 stickers

f. The coach used a \$100 bill to buy a cap for each of his 9 players. The caps cost \$9 each. How much change did he receive?

 \$



Multiplication Facts Chart

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

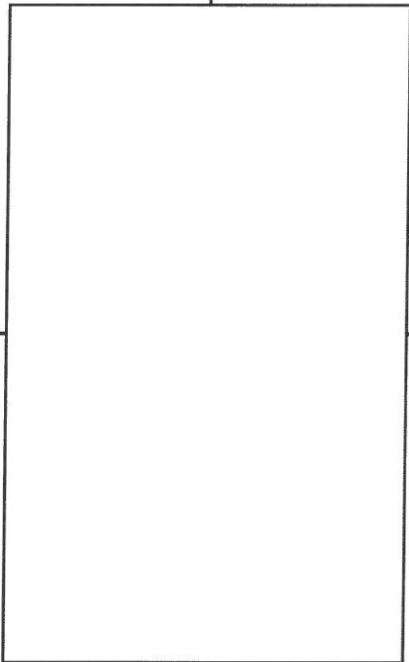
Representing chart

objects

pictures

words

equation



Answers:

1. $5 \times 4 = 20$
There are 20 slices of pizza altogether.
2. $4 \times 10 = 40$. Then 6 extra make $40 + 6 = 46$
Beth has 46 crayons.
3. $15 \div 5 = 3$
3 candy bars go in each bag. There are no candy bars leftover.
4. $6 \times 500 = 3,000$
There are 3,000 pieces of chocolate.
5. $34 \div 6 = 5$ with 4 left over.
Each friend gets 5 pencils and there are 4 pencils leftover.

4

Word problems

* Answers will vary.

Solve each word problem. Show your thinking.

a. Hiro's dad is laying square tiles in a rectangular courtyard. Eight tiles will fit along one side and 9 tiles will fit along the length. How many tiles will he need?

*

72 tiles

b. A rectangle has an area of 36 sq units. How many different pairs of dimensions will equal this area?

*

5 pairs

c. A large painting measures 4 feet by 3 feet. How much area will it cover on a wall that measures 5 yd by 3 yd?

*

12 ft²

d. Mrs. Garcia is tiling a rectangular table top. It fits 16 square tiles along one side and 8 tiles along its width. The tiles cost \$8.40 a box. How many tiles does she need?

*

128 sq tiles

e. Mrs. Wilson shared 63 stickers equally among 4 girls and 5 boys. How many stickers were in each share?

*

7 stickers

f. The coach used a \$100 bill to buy a cap for each of his 9 players. The caps cost \$9 each. How much change did he receive?

*

\$ 19

3

Modules 1–3

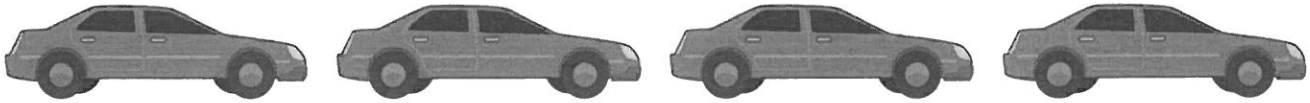
A class of Grade 3 students is raising money for a field trip. They decide to run a car wash as a fundraiser. Customers can choose from three different types of car wash.



3

Modules 1–3

- I. These customers have ordered the Premium Wash. The Premium Wash costs \$10 for each car. Write the total amount of money that is raised. Show your thinking.



3

Modules 1–3

2. At the end of the car wash, the Premium Wash option raised \$90. The Quick Wash option raised the same amount.

How many cars were washed with the Quick Wash option?

 cars

3

Modules 1–3

3. A Deluxe Wash takes 15 minutes to complete. What is the greatest amount of money that could be raised between 9:00 a.m. and 11:00 a.m., if people only order the Deluxe Wash?

\$ _____

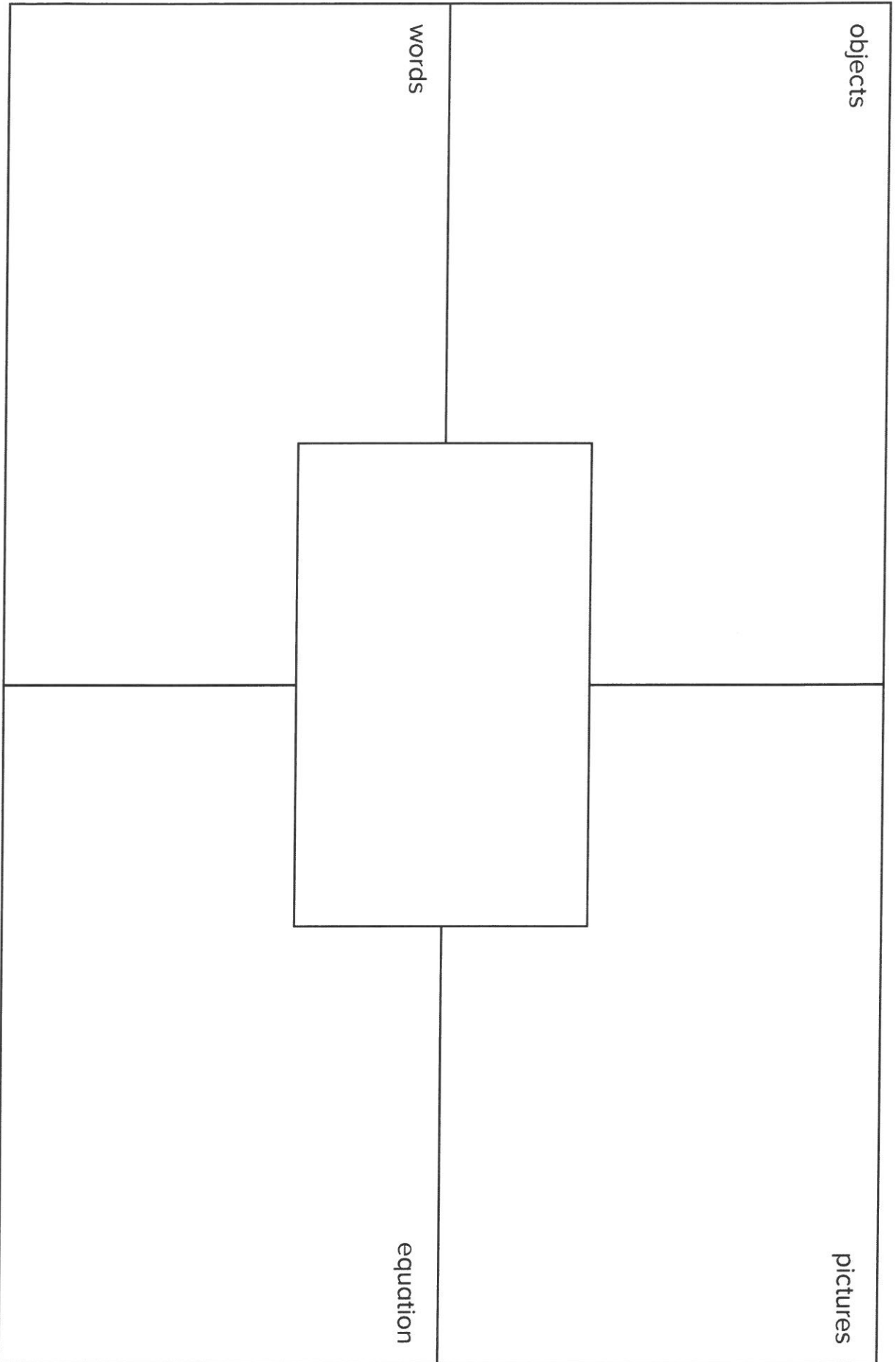
3

Modules 1–3

- 4. A Premium Wash takes 30 minutes to complete. A Deluxe Wash takes 15 minutes, and a Quick Wash takes only 10 minutes. Which of these options would the class of Grade 3 students want their customers to choose? Remember, the class wants to raise as much money as possible.

Explain which option you think is best.

Representing chart



3

Modules 1–3

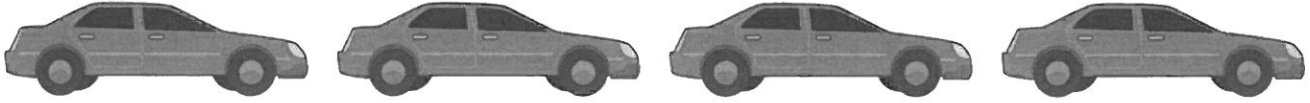
A class of Grade 3 students is raising money for a field trip. They decide to run a car wash as a fundraiser. Customers can choose from three different types of car wash.



3

Modules 1–3

1. These customers have ordered the Premium Wash. The Premium Wash costs \$10 for each car. Write the total amount of money that is raised. Show your thinking.



\$40

Item	DOK	Content	SMP	Points
#1	1	3.OA.A.1 3.OA.A.3	1, 4	1 out of 1

Rationale:

This item reviews content from Module 1 that relates to the tens multiplication facts. A correct response can be obtained by skip counting by tens, applying repeated addition, or writing the tens multiplication fact. This item aligns with DOK level 1, because each correct response involves the recall of a fact or procedure. SMP1 is fostered when students make sense of and solve word problems. SMP4 is promoted when students show their thinking to model their strategy.

Score:

- 1 Partially meets requirements.
Shows some understanding.
 - Applies a strategy e.g., skip counting, repeated addition, or multiplication to identify the correct answer.
- 0 Does not meet requirements.
 - Shows little or no understanding of the problem by showing few or none of the above criteria.

3

Modules 1–3

2. At the end of the car wash, the Premium Wash option raised \$90. The Quick Wash option raised the same amount.

How many cars were washed with the Quick Wash option?

$$9 \times 10 = 90$$

so

$$18 \times 5 = 90$$

18

cars

Item	DOK	Content	SMP	Points
#2	2	3.OA.A.3 3.OA.B.5	1, 7, 8	2 out of 2

Rationale:

This item explores the relationship between the tens and fives facts. This item aligns with DOK level 2, because efficient strategies can hinge on an understanding of the relationship between the tens and fives facts. SMPI is fostered when students make sense of and solve word problems. SMP7 and SMP8 are promoted when students recognize the relationship between the tens and fives facts (SMP7) and then use this relationship to form an efficient computation strategy (SMP8).

Score:

2 Meets requirements.

Shows complete understanding.

- Recognizes the relationship between the tens and fives facts.
- Applies an efficient strategy to calculate the answer ($10 \times 5 + 8 \times 5$).
- Correctly identifies the answer (18 cars).

3

Modules 1–3



2. At the end of the car wash, the Premium Wash option raised \$90. The Quick Wash option raised the same amount.

How many cars were washed with the Quick Wash option?

5, 10, 15, 20, 25, 30,
35, 40, 45, 50, 55, 60,
65, 70, 75, 80, 85, 90

16 cars

Item	DOK	Content	SMP	Points
#2	2	3.OA.A.3 3.OA.B.5	1, 7, 8	1 out of 2

Rationale:

This item explores the relationship between the tens and fives facts. This item aligns with DOK level 2, because efficient strategies can hinge on an understanding of the relationship between the tens and fives facts. SMP1 is fostered when students make sense of and solve word problems. SMP7 and SMP8 are promoted when students recognize the relationship between the tens and fives facts (SMP7) and then use this relationship to form an efficient computation strategy (SMP8).

Score:

- 1** Partially meets requirements.
Shows some understanding.
 - Demonstrates some relevant and accurate calculation (counting by 5's).
 - A computational error has been made.
 - The answer is incorrect.
- 0** Does not meet requirements.
Shows little or no understanding of the problem by showing few or none of the above criteria.

3

Modules 1–3

3. A Deluxe Wash takes 15 minutes to complete. What is the greatest amount of money that could be raised between 9:00 a.m. and 11:00 a.m., if people only order the Deluxe Wash?

$$4 \times 15 = 60 \text{ (1 hour)}$$

1 hour

2 hour

$$4 \times 8 = 32$$

$$2 \times 32 = 64$$

\$ 64

Item	DOK	Content	SMP	Points
#3	2	3.OA.A.3 3.MD.A.1	1, 7, 8	2 out of 2

Rationale:

This item connects content from Module 2 (time) and Module 3 (fours facts). The multi-step nature of the task aligns the problem with DOK level 2. SMP1 is fostered when students conceptualize and solve word problems. SMP7 and SMP8 are promoted when students recognize the relationship between measurement units (hours and minutes) and then apply what they know about doubles to calculate the answer.

Score:

- 2** Meets requirements.
Shows complete understanding.
- Recognizes the number of quarter hour intervals in one hour.
 - Applies an efficient strategy to calculate the answer.
 - Correctly identifies the answer (\$64).

3

Modules 1–3

3. A Deluxe Wash takes 15 minutes to complete. What is the greatest amount of money that could be raised between 9:00 a.m. and 11:00 a.m., if people only order the Deluxe Wash?

9:15	9:30	9:45	10:15	10:30	10:45	11:00
\$8	\$8	\$8	\$8	\$8	\$8	\$8

\$ 66

Item	DOK	Content	SMP	Points
#3	2	3.OA.A.3 3.MD.A.1	1, 7, 8	1 out of 2

Rationale:

This item connects content from Module 2 (time) and Module 3 (four facts). The multi-step nature of the task aligns the problem with DOK level 2. SMP1 is fostered when students conceptualize and solve word problems. SMP7 and SMP8 are promoted when students recognize the relationship between measurement units (hours and minutes) and then apply what they know about doubles to calculate the answer.

Score:

- 1** Partially meets requirements.
Shows some understanding.
 - Demonstrates some accurate and relevant calculations (repeated addition).
 - A computational error has been made.
 - The answer is incorrect.
- 0** Does not meet requirements.
Shows little or no understanding of the problem by showing few or none of the above criteria.

3

Modules 1–3



4. A Premium Wash takes 30 minutes to complete. A Deluxe Wash takes 15 minutes, and a Quick Wash takes only 10 minutes. Which of these options would the class of Grade 3 students want their customers to choose? Remember, the class wants to raise as much money as possible.

Explain which option you think is best.

Car Wash	Time	Number per hour	Cost	Amount raised in one hour
Premium	30 min	2	\$10	$2 \times 10 = \$20$
Deluxe	15 min	4	\$8	$4 \times 8 = \$32$
Quick	10 min	6	\$5	$6 \times 5 = \$30$

The Deluxe Wash is the best option to choose because the class can make more money each hour. The premium wash takes too long to finish. It is the worst option.

Item	DOK	Content	SMP	Points
#4	3	3.OA.A.3 3.MD.A.1	1, 4, 7	2 out of 2

Rationale:

This item connects content from Module 1 (fives and tens facts), Module 2 (time), and Module 3 (fours facts). The level of planning, reasoning, and justification aligns the problem with DOK level 3. SMPI is fostered when students persevere in solving the problem, SMP7 when students see the relationship between different time intervals (e.g., 10 minutes) and one hour, and SMP4 when students show their thinking to model their strategy.

Score:

- 2 Meets requirements.
Shows complete understanding.
- Recognizes the number of (10, 15, 30) minute intervals in one hour.
 - Applies an efficient strategy to identify the best option.
 - Correctly identifies the answer (Deluxe Wash).

3

Modules 1–3



4. A Premium Wash takes 30 minutes to complete. A Deluxe Wash takes 15 minutes, and a Quick Wash takes only 10 minutes. Which of these options would the class of Grade 3 students want their customers to choose? Remember, the class wants to raise as much money as possible.

Explain which option you think is best.

2 premium washes in an hour.

4 deluxe washes in an hour.

6 quick washes in an hour.

The quick wash is the best option to choose because you can do more of them in one day.

Item	DOK	Content	SMP	Points
#4	3	3.OA.A.3 3.MD.A.1	1, 4, 7	1 out of 2

Rationale:

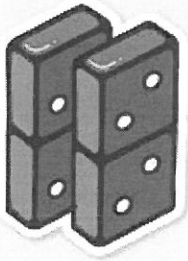
This item connects content from Module 1 (fives and tens facts), Module 2 (time), and Module 3 (fours facts). The level of planning, reasoning, and justification aligns the problem with DOK level 3. SMP1 is fostered when students persevere in solving the problem, SMP7 when students see the relationship between different time intervals (e.g., 10 minutes) and one hour, and SMP4 when students show their thinking to model their strategy.

Score:

- 1** Partially meets requirements.
Shows some understanding.
- Recognizes the number of (10, 15, 30) minute intervals in one hour.
 - Demonstrates some accurate and relevant calculations.
 - The answer is incorrect due to a simple error.
- 0** Does not meet requirements.
Shows little or no understanding of the problem by showing few or none of the above criteria.

Fluency Game Directions

Practicing 9s Facts



Before you begin, **create** two sets of cards with 0, 1, 2, 3, 4, and 5 on each card. Mix the cards in each set and place both sets face down in two piles. Print out or create the **game board** and gather resources that can be used as counters (for example, beans of two different colors or different-sized coins).

Start the game by having player 1 turn over the top cards of both sets and add them together. For example, 4 plus 3 is 7. They then multiply the total by 9 using the build-down strategy. For example, 10 multiplied by 7 is 70, so 9 multiplied by 7 is 7 less. The answer is 63.

Find the total on the game board and place a counter on the number.

If the number already has a counter on it, the player misses a turn.

Players alternate roles and play continues until one player has four counters on the board.

***Cut out the numbers below to use as your cards**

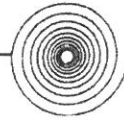
0	1	2	3	4	5
0	1	2	3	4	5

45	0	72	36
90	54	63	18
27	0	45	81
36	9	72	90

Name: _____

Multiplication Facts for the Week

9s



Multiplying by 9

$$n \times 9$$

$$0 \times 9 = 0$$

$$1 \times 9 = 9$$

$$2 \times 9 = 18$$

$$3 \times 9 = 27$$

$$4 \times 9 = 36$$

$$5 \times 9 = 45$$

$$6 \times 9 = 54$$

$$7 \times 9 = 63$$

$$8 \times 9 = 72$$

$$9 \times 9 = 81$$

$$10 \times 9 = 90$$

$$11 \times 9 = 99$$

$$12 \times 9 = 108$$

What patterns do you notice?

What can you say about multiplying a number by 9?

Day 1

Name: _____

Date: _____

 $\times 9$

1. $6 \times 90 =$ _____

2. $6 \times 900 =$ _____

3. $6 \times 9,000 =$ _____

4. $6 \times 90,000 =$ _____

5. $6 \times 900,000 =$ _____

6. $6 \times 9,000,000 =$ _____

7. $\Delta \times 9 = 108$ $\Delta =$ _____

8. $72 = 9 \times \Delta$ $\Delta =$ _____

9. $9 \times \Delta = 54$ $\Delta =$ _____

10. $(9 \times 8) + (2 \times 9) =$ _____

11. $(5 \times 9) + (9 \times 0) =$ _____

12. $(9 \times 3) + (9 \times 3) =$ _____

13. $9 \times 2 \times 2 =$ _____

14. _____ $= 9 \times 7 + 17$

15. $(11 \times 9) - 20 =$ _____

16. _____ $= 9 \times 10 - 40$

17. _____ $= 9 \times 2 + 7$

18. $9 \times 12 - 50 =$ _____

19. _____ $= 9 \times 4 + 14$

20. _____ $= 8 \times 9 + 17$

Input $\times 9 =$ Output

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

Input $\times 9 - 7 =$ Output

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

Day 2

Name: _____

Date: _____

 $\times 9$

1. $7 \times 90 =$ _____

2. $7 \times 900 =$ _____

3. $7 \times 9,000 =$ _____

4. $7 \times 90,000 =$ _____

5. $7 \times 900,000 =$ _____

6. $7 \times 9,000,000 =$ _____

7. $\Delta \times 9 = 72$ $\Delta =$ _____

8. $36 = 9 \times \Delta$ $\Delta =$ _____

9. $9 \times \Delta = 45$ $\Delta =$ _____

10. $(9 \times 3) + (10 \times 9) =$ _____

11. $(7 \times 9) + (9 \times 1) =$ _____

12. $(9 \times 4) + (9 \times 9) =$ _____

13. $9 \times 2 + 22 =$ _____

14. _____ $= 9 \times 7 + 17$

15. $(11 \times 9) - 20 =$ _____

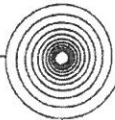
16. _____ $= 9 \times 11 - 55$

17. _____ $= 9 \times 3 + 7$

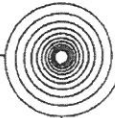
18. $9 \times 7 - 23 =$ _____

19. _____ $= 9 \times 5 + 15$

20. _____ $= 9 \times 9 + 9$

Input $\times 9 + 15 =$ Output


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

Input $\times 9 - 9 =$ Output


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

Day 3

Name: _____

Date: _____

 $\times 9$

1. $4 \times 90 =$ _____

2. $4 \times 900 =$ _____

3. $4 \times 9,000 =$ _____

4. $4 \times 90,000 =$ _____

5. $4 \times 900,000 =$ _____

6. $4 \times 9,000,000 =$ _____

7. $\Delta \times 9 = 36$ $\Delta =$ _____

8. $81 = 9 \times \Delta$ $\Delta =$ _____

9. $9 \times \Delta = 90$ $\Delta =$ _____

10. $(9 \times 11) + (0 \times 9) =$ _____

11. $(6 \times 9) + (9 \times 2) =$ _____

12. $(9 \times 8) + (9 \times 3) =$ _____

13. $9 \times 5 + 45 =$ _____

14. _____ $= 9 \times 8 + 23$

15. $(12 \times 9) - 70 =$ _____

16. _____ $= 9 \times 2 - 9$

17. _____ $= 9 \times 6 + 7$

18. $9 \times 8 - 20 =$ _____

19. _____ $= 9 \times 6 + 30$

20. _____ $= 9 \times 8 + 18$

Input $\times 9 + 25 =$ Output

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

Input $\times 9 - 6 =$ Output

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

Day 4

Name: _____

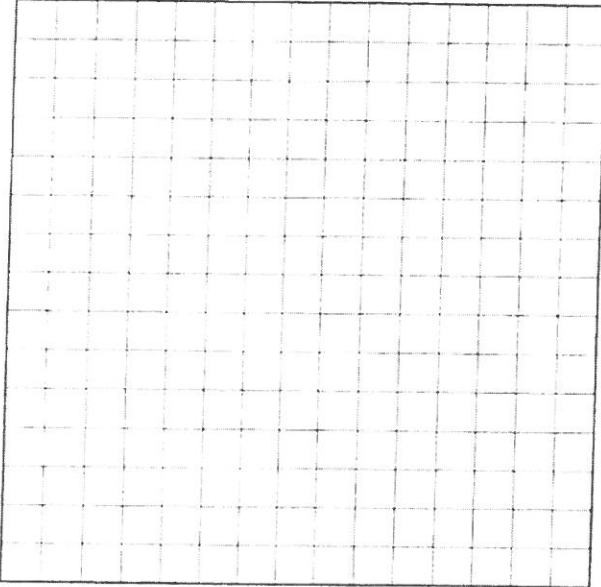
Date: _____

$\times 9$

Dimensions: 4×9

Area: _____

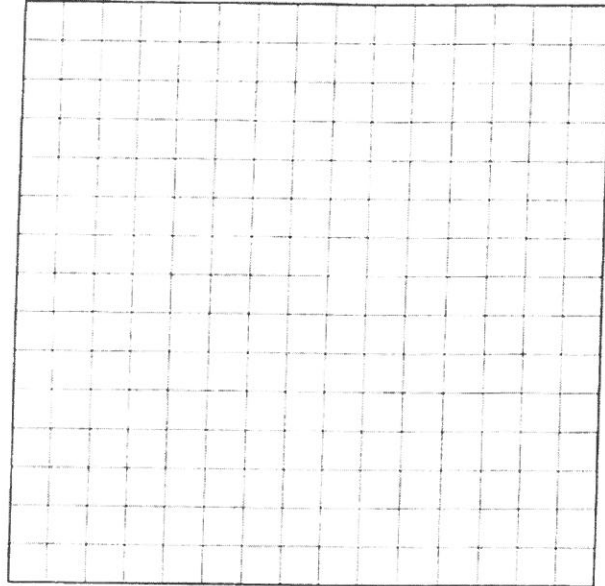
Perimeter: _____



Dimensions: 9×8

Area: _____

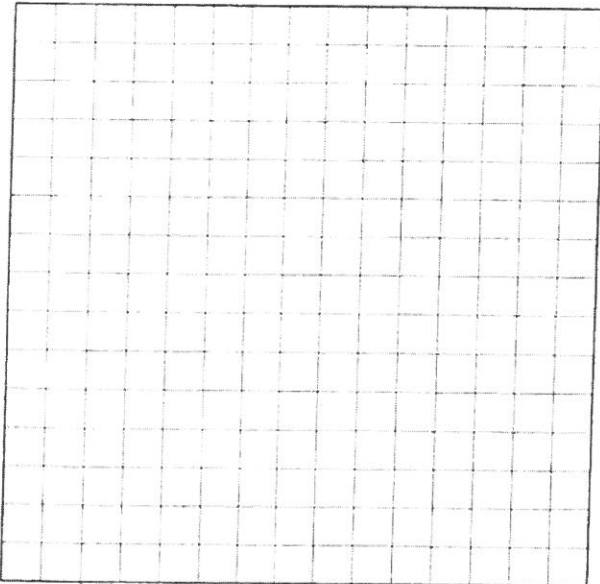
Perimeter: _____



Dimensions: 7×9

Area: _____

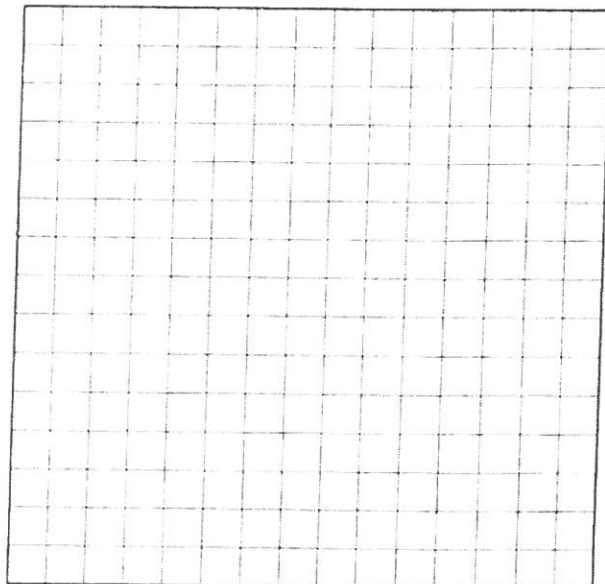
Perimeter: _____



Dimensions: 9×6

Area: _____

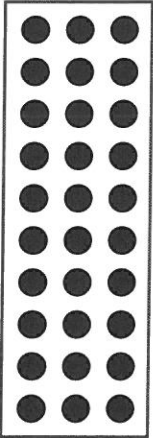
Perimeter: _____



Name _____

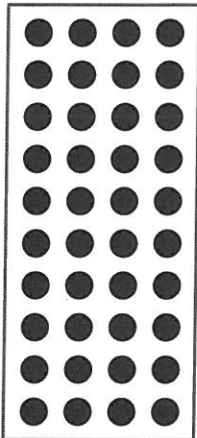
For each of these, complete the fact you see and know.
Then cross out 1 row of dots and finish the number sentence.

a.



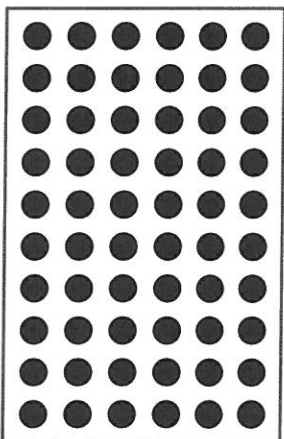
I know 10 x 3 = _____
so _____ x 3 = _____

b.



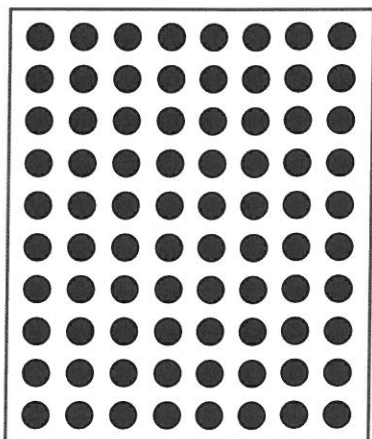
I know 10 x 4 = _____
so _____ x 4 = _____

c.



I know _____ x 6 = _____
so _____ x 6 = _____

d.



I know _____ x 8 = _____
so _____ x 8 = _____

Name _____

Cut out and fold along the dotted line.
Show how you can use a fact you should know to figure out 9 threes.

