

3rd Grade Colorado State Practice Math Test

Colorado Practice Test Grade 3

Grade 3

Questions

Name: Class:

Date: Score: Score:

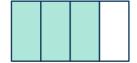
Unit 1

13 questions

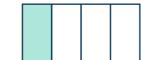
Calculators are not permitted.

Select the **three** models that represent $\frac{1}{4}$ of the figures shaded.

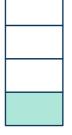
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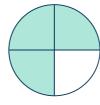
D.



B.



E.

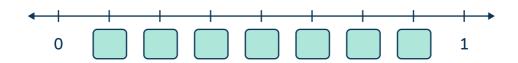


C.



F.

2 Place the number $\frac{5}{8}$ on the number line.



What is the value of 732-87? Enter your answer in the box.



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Brenda is finding the quotient of $\frac{24}{3}$. She says "the answer is 21 because addition is the opposite of division and 3+21=24".

PART A:

Identify the incorrect reasoning in Brenda's statement.



PART B:

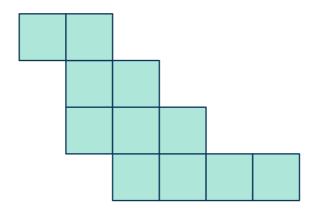
Show or explain how Brenda can correct her reasoning, then find the quotient when 24 is divided by 3.



5 Select the boxes to show what is true for each of the shapes listed.

Shape	Is a quadrilateral	Has more than 4 sides
Square		
Pentagon		
Rectangle		
Hexagon		

The figure below is made up of squares. Find the area, in square centimeters, of the figure.



= 1 square centimeter

Enter your answer in the box.



On Monday Ivan read 17 pages in his book. For the next 4 days, Ivan will read 14 pages each day. At the end of the week, how many pages will Ivan have read in total? Show your work in the space provided.

Answer			
(

8 Enter your answers in the spaces provided:

9	Jenny is making friendship bracelets. Each of the bracelets needs 7 inches of
	string. If she wants to make 12 bracelets, how many inches of string will she
	need?

Enter your answer in the box.

Answer		

Lena is buying snacks for her road trip. She is going to buy 4 bags of popcorn, 1 package of gum, and 5 bags of pretzels. The table below shows the price of each snack.

Price of Snacks

Snack	Price
Bag of popcorn	\$4.00
Package of gum	\$3.00
Bag of pretzels	\$5.00

Part A:

Write an equation showing the cost of buying four bags of popcorn.

4 x	_	
4 X	_	

Part B:

Lena only has \$60 to spend on the snacks.

- Find the total cost of 5 bags of popcorn, 3 packages of gum, and 5 bags of pretzels.
- Explain or show if Lena will have any money left over.
- What is the total amount of money left over?

Writer you answer in the box below.

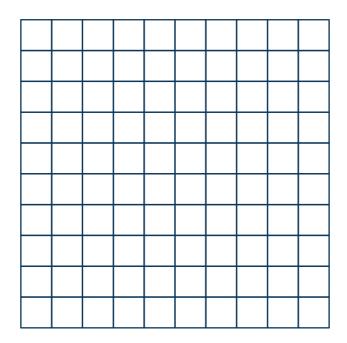
(1

- Select the fraction that is larger than $\frac{2}{3}$ 11
 - A. $\frac{1}{2}$
 - B. <u>4</u>
 - C. $\frac{3}{4}$ D. $\frac{4}{8}$

Donny needs to put 14 chairs from classroom 1 and 18 chairs from classroom 2 into even rows in the library.

Part A:

Use the grid to shade in an appropriate array to represent the chairs in the library.



Part B:

Find the area of the array you shaded. Explain your answer using an equation or equations.

	Answer Answer
١	

13	Lena has 6 10-liter bottles of water. How many total liters of water does she
	have?

Enter your answer in the box.



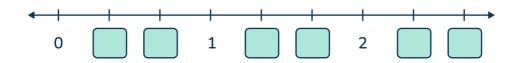
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Unit 2

10 questions

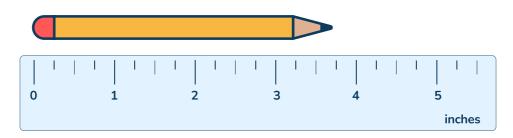
Calculators are not permitted.

1 Place the improper fraction, $\frac{7}{3}$ in the correct space on the number line below.



- 2 What is the value of 7×60 ?
 - A. 480
 - B. 420
 - C. 490
 - D. 360

3 What is the length of the pencil in inches?



- A. $3\frac{3}{4}$ inches
- B. 3 inches
- C. 4 inches
- D. 3 $\frac{1}{2}$ inches
- 4 Which two statements can be represented by the expression 3×8 .
 - A. A teacher needs 3 desks for each of the 8 groups.
 - B. There are 3 birds in a tree. Then, 8 more join them in the tree.
 - C. Jill buys 3 red balloons and 8 blue balloons.
 - D. There are 3 rows of chairs, with 8 chairs in each row.
 - E. Toni has 8 marbles and gives 3 of them away to his friends.

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5	There are 12 people going to a show. They each have 3 snacks. Write an
	expression showing how many snacks the people have altogether.

Write your answer in the box.



- 6 Two coaches and their teams collected canned goods for a food drive.
 - Team A collected 182 cans.
 - Team B collected 223 cans.
 - Both coaches collected 45 cans.

Part A:

Which comparisons about the cans collected are correct? Select **three** comparisons.

- A. 45 < 182
- B. 182 < 45
- C. 223 > 182
- D. 223 < 45
- E. 223 > 45

Part B:

Use the place value chart to show the total amount of cans Team A and Team B collected.

Tens	Ones
	Tens

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Part C:

The owner of a small food store donated 46 more cans. The coaches took all the cans and placed them together.

- Write an equation or equations that could be used to find the total number of cans, including the ones donated from the small food store.
- Find the total number of cans.
- Write the total number of cans in expanded form.

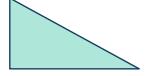
Use the space below to write your answer.



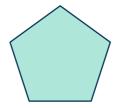
7 What number makes the equations true?

- A. 6
- B. 8
- C. 9
- D. 7
- 8 Which group of shapes only has quadrilaterals?

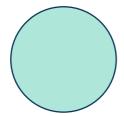


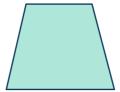


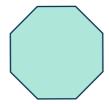




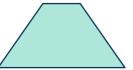
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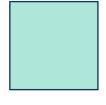
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D.

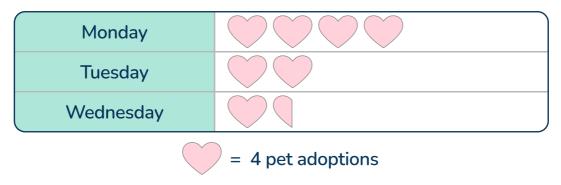






9 Use the information in the graph below to answer the questions.

Animal Shelter Pet Adoptions



Part A:

What is the total number of pet adoptions on Monday, Tuesday, and Wednesday?

- A. 8
- B. $6\frac{1}{2}$
- C. 32
- D. 30

Part B:

How many more pet adoptions were there on Monday than on Tuesday and Wednesday?



10 Solve each equation.

Unit 3

10 questions

Calculators are not permitted.

1 Select **two** fractions that are equivalent to the fraction value on the number line.

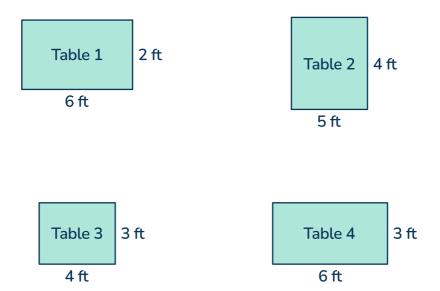


- A. $\frac{1}{4}$
- B. $\frac{3}{8}$
- C. $\frac{2}{8}$
- D. $\frac{1}{3}$
- E. $\frac{2}{6}$

2 Find the missing length, width, or perimeter for each rectangle in the table.

	Length (inches)	Width (inches)	Perimeter (inches)
Rectangle A	6 inches	5 inches	
Rectangle B	7 inches		32 inches
Rectangle C		4 inches	12 inches

Brandon and Brenda are twins. They decided to throw themselves a birthday party. They need to set up tables in their backyard for the party. The rectangles below represent the tops of the tables.



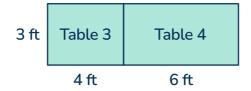
Part A: Identify two tabletops with the same area.



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Part B:

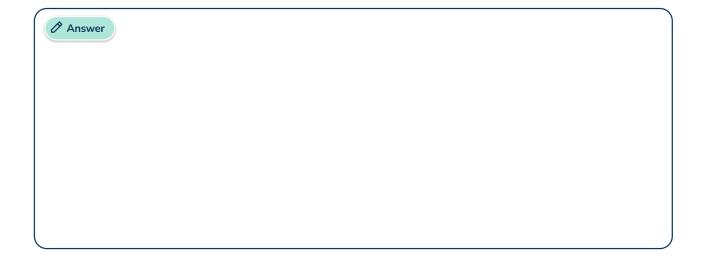
The image below shows Table 3 and Table 4 placed together to make a larger table.



Brandon uses the expression $3 \times (4 + 6)$ to find the area of the new large tabletop.

Brenda uses the equation $(3 \times 4) + (3 \times 6)$ to find the total area of the new large tabletop.

Find the area of the new larger table and explain why both Brandon and Brenda are correct.



A student practices gymnastics in preparation for the championship for 65 minutes. She starts practice at 4:15 PM. What time will she end practice?

Place your answer in the boxes below.



- Neela has three turtles. Each turtle eats 3 ounces of food each day. Neela has 54 ounces of turtle food. How many more days can Neela feed her turtles with the food she has?
 - A. 6 days
 - B. 18 days
 - C. 9 days
 - D. 45 days

6 At a factory, there is a large storage tank for diesel.

Part A:

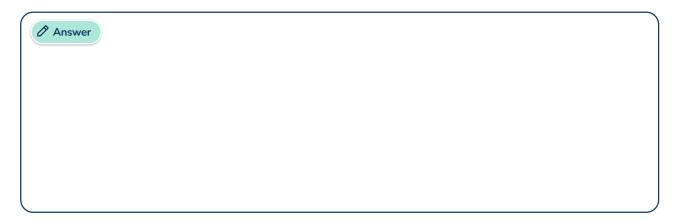
In a particular week in January, the factory uses 70 liters of gasoline per day. What is the total amount of gasoline, in liters, used at the factory in the 7 days?



Part B:

The storage tank can hold a total of 800 liters of gasoline when it is full. During the first 4 days in February, after the tank was filled completely, 282 liters of gasoline was used.

What is the amount of gasoline, in liters, that remains in the tanks after those 4 days?



7 Select the **three** comparisons that are true.

A.
$$\frac{1}{2} > \frac{1}{3}$$

B.
$$\frac{3}{4} < \frac{2}{3}$$

C.
$$\frac{3}{6} > \frac{1}{2}$$

D.
$$\frac{2}{3} = \frac{4}{6}$$

E.
$$\frac{2}{6} = \frac{1}{3}$$

- 8 What is 5,372 rounded to the nearest hundred?
 - A. 5,400
 - B. 5,300
 - C. 5,000
 - D. 5,370

9 Point M is on the number line below.



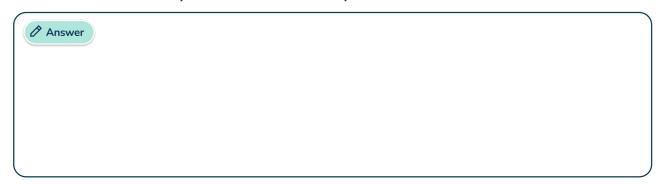
Part A:

What is the fraction that represents point M?

Point M = _____

Part B:

What does the denominator of your fraction represent as it relates to the number line? Write your answer in the space below.



Part C:

What does the numerator of your fraction represent as it relates to the number line? Write your answer in the space below.



10 Lucas collects 7 marbles each day. This creates a pattern of 7, 14, 21, ...

How many marbles will Lucas have at the end of the eighth day?

- A. 28
- B. 63
- C. 56
- D. 49

Answer Key

	Unit 1			
ltem number	Correct answer	Standard(s)	DOK	
1	B, C, D	3.NF.A.2	DOK 2	
2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3.NF.A.2b	DOK 2	
3	645	3.NBT.A.1	DOK 1	
4	Part A: The incorrect reasoning is that addition is not the opposite of division. Multiplication is the opposite of division. Part B: Multiplication is the opposite of division. $24 \div 3 = 8$ and $3 \times 8 = 24$	3.OA.B.2	DOK 3	
5	Square: is a quadrilateral Pentagon: has more than 4 sides Rectangle: is a quadrilateral Hexagon: has more than 4 sides	3.G.A.1	DOK 2	
6	11 square centimeters	3.MD.D.8	DOK 2	
7	17+ 14+ 14 + 14 + 14 = 17 + 4(14)= 17 + 56 = 73 pages	3.OA.D.8	DOK 3	
8	$32 \div 8 = 4$ $50 \div 5 = 10$ $108 \div 12 = 9$	3.OA.C.7	DOK 1	
9	7 x 12 = 84 84 inches of string	3.OA.A.3	DOK 2	

	Unit 1		
ltem number	Correct answer	Standard(s)	DOK
10	Part A: 4 x \$4.00 = \$16.00 \$16 Part B: 5 x \$4.00 = \$20.00 3 x \$3.00 = \$9.00 5 x \$5.00 = \$25.00 TOTAL: \$54 Yes, Lena will have enough money because she has \$60 and is spending \$54. She will have \$6 left over because \$60 - \$54 = \$6	3.OA.A.3 3.NBT.A.2	DOK 3
11	С	3.NFA.3.d	DOK 2
12	Part A: Possible answer: 4 rows by 8 columns Part B: In total, there are 32 chairs in the library. 4 x 8 = 32	3.OA.A.3	DOK 3
13	60 liters	3.MD.A.1b	DOK 1

	Unit 2		
ltem number	Correct answer	Standard(s)	DOK
1	0 1 2 7/3	3.NF.A.2b	DOK 2
2	В	3.NBT.A.3	DOK 1
3	A	3.MD.A.2	DOK 1
4	A, D	3.OA.A.1	DOK 2
5	12 x 3	3.OA.A.3	DOK 2
6	Part A: A, C, E Part B: Hundreds Tens Ones 1 8 2 2 2 3 3 10 5 TOTAL: 405 cans Part C: 405 + 45 + 46 = 496 cans in total	3.NBT.A	DOK 3
7	В	3.OA.B.5	DOK 1
8	С	3.G.A.1	DOK 1

Unit 2				
ltem number	Correct answer	Standard(s)	DOK	
9	Part A: D Part B: Monday: 16 adoptions Tuesday and Wednesday: 14 adoptions 16 - 14 = 2 2 more adoptions	3.MD.B.3	DOK 3	
10	$5 \times 12 = 60$ $132 \div 11 = 12$ $4 \times 6 = 24$ $72 \div 8 = 9$	3.OA.A.4	DOK 1	
Unit 3				
ltem number	Correct answer	Standard(s)	DOK	
1	A, C	3.NF.A.3b	DOK 2	
2	Rectangle A: perimeter = 22 inches Rectangle B: width = 9 inches Rectangle C: length = 2 inches	3.MD.D.8	DOK 2	

	Unit 3			
ltem number	Correct answer	Standard(s)	DOK	
3	Part A: Tabletop 1 and tabletop 3 both have an area of 12 square feet Part B: They are both correct because the answer is the same and you can either find the areas separately and add them or view it as one large rectangle with dimensions 3×10 . $3 \times (4 + 6)$ $3 \times 10 = 30$ square feet $(3 \times 4) + (3 \times 6)$ $12 + 18 = 30$ square feet	3.MD.C.7	DOK 3	
4	5:20	3.MD.A.1	DOK 2	
5	A	3.OA.D.8	DOK 2	
6	Part A: 490 liters Part B: 518 liters	3.NBT.A.3 3.OA.D.8 3.NBT.A.2	DOK 3	
7	A, D, E	3.NF.A.3	DOK 2	
8	А	3.NBT.A.1	DOK 1	

	Unit 3				
ltem number	Correct answer	Standard(s)	DOK		
9	Part A: $\frac{6}{8}$ Part B: The denominator is the equal parts the line is broken into. There are 8 equal parts. Part C: The numerator is the place where M is on the number line. M is located at the 6th spot or placed at the 6th point between 0 and 1 meaning that it represents 6 parts out of the 8 equal parts.	3.NF.A.1a 3.NF.A.2a 3.NF.A.2b	DOK 3		
10	С	3.OA.D.9	DOK 2		

Breakdown of Assessment by domain				
Operations and Algebraic thinking (OA)	Number and Operations in Base Ten (NBT)	Number and Operations - Fractions (NF)	Measurement and Data (MD)	Geometry (G)
34%	19%	24%	18%	5%

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