

# 3rd Grade New Jersey State Practice Math Test

New Jersey Practice Test Grade 3



Questions	
Name:	Class:
Date:	Score:

#### Unit 1 12 questions

You are NOT permitted to use calculators.

1 Which two statements can be represented by the the expression 3 x 8.

- A. A teacher puts 3 desks in groups of 8.
- 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.

2 David has been collecting marbles. He has been placing the marbles in a large jar. All together, David has collected 57 marbles. He decides to give 19 marbles to his friend.

#### Part A:

How many marbles does David now have? Show your work in the space below.



#### Part B:

Three weeks went by and David collected some more marbles. He now has 83 marbles. How many marbles did he collect over the past three weeks? Show your work in the space below.



#### Part C:

Over the three weeks, If he collected an equal amount of marbles per week, how many marbles did he collect per week? Show your work in the space below.



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



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



5 Brenda is finding the quotient of  $24 \div 3$ . 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.

Answer			





- 7 Kelly is making cupcakes.
  - It takes 6 minutes to mix the batter.
  - The cupcakes bake for 15 minutes.
  - The cupcakes then cool for 4 minutes.

What is the total amount of time, in minutes, Kelly spends mixing, baking, and cooling the cupcakes?

Answer:\_\_\_\_\_

8 Lee's grandfather collects baseball cards. His grandfather goes to a baseball card trading show where he can trade, sell, and buy baseball cards. Lee's grandfather goes to the show with 103 of his cards. While he is there he decides to sell 14 cards and buy 19 cards. How many cards does he leave the show with?

Answer	
	,

9 Enter your answers on the spaces provided:

30 x 7 =	
50 x 8 =	
80 x 9 =	

Donny needs to put 14 chairs from classroom 1 and 18 chairs from classroom2 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.



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



12 Compare the fractions using <, > or =.

$$\frac{2}{5}$$
 \_\_\_\_\_  $\frac{2}{1}$ 

#### Unit 2 9 questions

#### You are NOT permitted to use calculators.



2 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

3 Which group of shapes only has quadrilaterals?



4 Enter your answer on the space.

614 + \_\_\_\_\_ = 639

5 What number makes the equations true?

8 × \_\_\_\_\_ = 64

- A. 6
- B. 8
- C. 9
- D. 7

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6 Select the fraction that is larger than  $\frac{2}{3}$ 

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

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

Animal Shelter Pet Adoptions

Monday			
Tuesday			
Wednesday			
= 4 pet adoptions			

#### Part A:

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

A. 8 B. 6 <u>1</u> C. 32 D. 30

Part B:

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



8 Khaled circles the products of 6 in red and colors the the products of 3 in blue. Which statements about the products are true? Select all the correct answers.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- A. The products of 6 are always even
- B. The products of 3 are always odd
- C. All products of 6 are also products of 3
- D. All products of 3 are also products of 6
- E. Half a product of 6 is always a product of 3

9 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.



#### 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.



#### Unit 3 12 questions

#### You are NOT permitted to use calculators.

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



- 2 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

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

Total liters = \_\_\_\_\_

4 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 total pages will Ivan have read in total? Show your work in the space provided.

Answer	
	)

5 What time is shown on the clock? Write the answer on the space provided.



Answer	•	
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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.  $\frac{2}{6} = \frac{1}{3}$ 

#### New Jersey State Practice Math Test | Grade 3 | Questions

8 What is 5,372 rounded to the nearest hundred?

A. 5,400B. 5,300C. 5,000D. 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.

Answer

10 What is the length of the pencil in inches?



11 Dylan partitioned the wall in his bedroom into three equal parts. He decided to paint one part green, one part blue and one part white. What fraction of the wall is painted green?



Answer: \_\_\_\_\_

12 he figure below has a perimeter of 81 inches. Find the length of the missing side. Place your answer on the space below.





### Answer Key

Unit 1 No Calculator				
ltem number	Correct answer	Standard(s)	DOK	
1	A, D	3.0A.A.1	DOK 2	
2	<ul> <li>Part A: 57-19=38, David has 38 marbles left.</li> <li>Part B: 83-38=45, David collected 45 marbles over the three weeks.</li> <li>Part C: 45 ÷ 3 =15, David collected 15 marbles per week.</li> </ul>	3.OA.D.8 3.OA.C.7	DOK 3	
3	B, C, D	3.G.A.2	DOK 2	
4		3.NF.2.a	DOK 2	
5	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 x 8 = 24	3.OA.B.6	DOK 3	
6		3.NF.A.1	DOK 2	
7	25 minutes	3.0A.D.8 3.MD.A	DOK 2	

Unit 1 No Calculator			
ltem number	Correct answer	Standard(s)	DOK
8	103 -14 = 89 89 + 19 = 108 He leaves with 108 cards	3.NBT.A.3	DOK 1
9	30 x 7 = 210 50 x 8 = 400 80 x 9 = 720	3.NBT.A.3	DOK 1
10	Part A: Possible answer: 4 rows by 8 columns $\begin{array}{c c c c c c c c c c c c c c c c c c c $	3.OA.A.3	DOK 3
11		3.NF.A.2b	DOK 2
12	$\frac{2}{5} < \frac{2}{1}$	3.NF.A.3d 3.NF.A.3c	DOK 1

Unit 2				
ltem number	Correct answer	Standard(s)	DOK	
1	Area = 21 square feet Area = 24 square feet Area = 36 square feet	3.MD.C.7a	DOK 1	
2	С	3.0A.D.9	DOK 2	
3	С	3.G.A.1	DOK 1	
4	25	3.NBT.A.2	DOK 1	
5	В	3.0A.A.4	DOK 2	
6	С	3.NF.A.3	DOK 2	
7	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	
8	A, C, E	3.0A.A.3	DOK 2	

Unit 2				
ltem number	Correct answer	Standard(s)	DOK	
9	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 $3 \times 10$ . $3 \times (4 + 6)$ $3 \times 10 = 30$ square feet $(3 \times 4) + (3 \times 6)$ 12 + 18 = 30 square feet	3.MD.C.7a	DOK 3	

Unit 3						
ltem number	Correct answer	Standard(s)	DOK			
1	A, C	3.NF.A.3a	DOK 2			
2	А	3.0A.A.3	DOK 2			
3	60 liters	3.NBT.A.3 3.MD.A.2	DOK 2			
4	73 pages	3.0A.D.8	DOK 3			
5	12:20	3.MD.A.1	DOK 1			
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			

Unit 3					
ltem number	Correct answer	Standard(s)	DOK		
8	А	3.NBT.A.1	DOK 1		
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	А	3.MD.A.2	DOK 2		
11	$\frac{1}{3}$ of the wall is painted green	3.G.A.2	DOK 2		

Unit 3					
ltem number	Correct answer	Standard(s)	DOK		
12	13 in 22 in ? 22 in	3.MD.D.8	DOK 2		
	Perimeter = 13 + 13 + 22 + 22 + ?				
	81 = 70 + ?				
	81 = 70 + 11				
	Missing side = 11 inches				

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)		
30%	17%	29%	19%	5%		

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