THIRD SPACE LEARNING

4th Grade Ohio State Practice Math Test

Ohio Practice Test Grade 4

Grade 4

Questions

Name: ..... Class: .....

Date: ..... Score: .....

Free response and multiple choice.

Standard: 4.NF.5
DOK 2

1 What is the value of the expression $\frac{7}{10} + \frac{11}{100}$?

Answer:_____

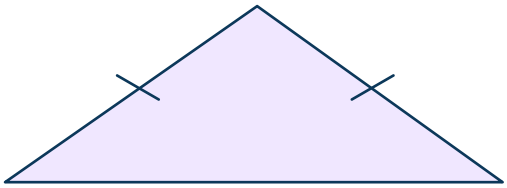
Standard: 4.NF.3.b
DOK 2

2 Select 4 expressions that are equivalent to $\frac{12}{5}$?

- ☐ $1 + 1 + \frac{1}{5} + \frac{1}{5}$
- ☐ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + 1$
- ☐ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + 1$
- ☐ $\frac{2}{5} + \frac{1}{5} + \frac{2}{5} + 1$
- ☐ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{5}{5}$
- ☐ $1 + 1 + \frac{1}{5}$

Standard: 4.G.2
DOK 2

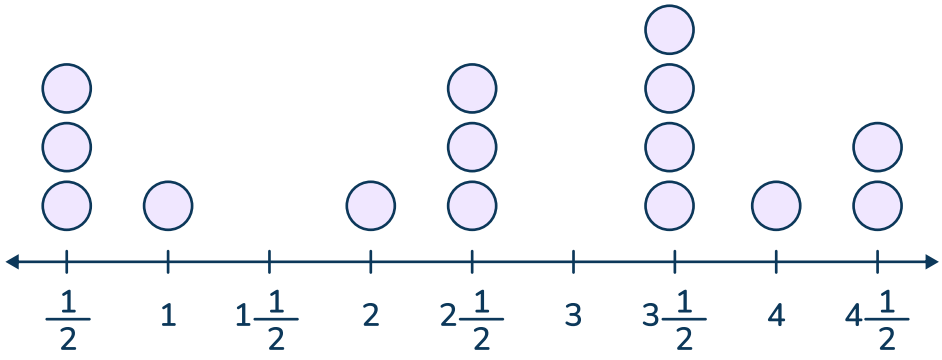
3 A shape is given below. Select 2 statements that are true:



- [ ] The triangle has 1 obtuse angle.
- [ ] The triangle has two equal sides.
- [ ] The triangle has 3 equal sides.
- [ ] The triangle has 1 right angle.
- [ ] The triangle has 3 acute angles.

Standard: 4.MD.4
DOK 2

4 The line plot shows the length of 15 different fish.

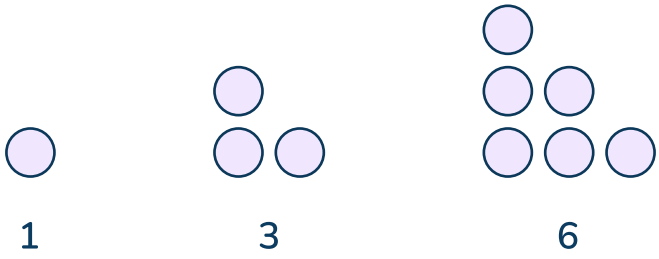


What is the difference in length, in inches, between the fish that is the longest and the fish that is the shortest?

Answer:_____

Standard: 4.OA.5
DOK 3

5 What is the next number in the pattern?



Answer:_____

Standard: 4.NF.4.b
DOK 3

6 Which number makes the equation true?

$14 \times \frac{2}{5} = ? \times \frac{1}{5}$

Answer:_____

Standard: 4.NBT.5
DOK 1

7 What is the product of 6 and 3204?

Answer:_____

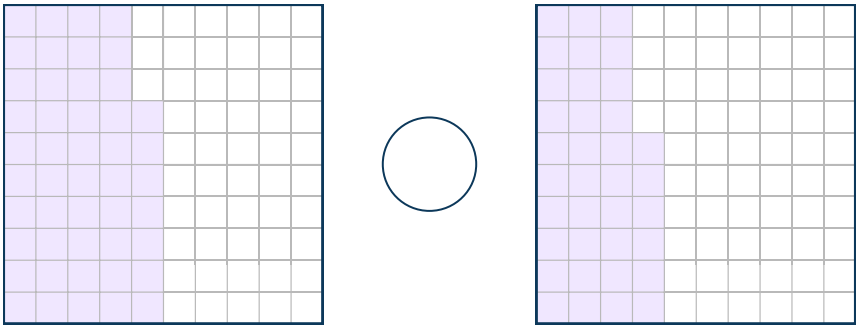
Standard: 4.MD.1
DOK 2

8 Roz speed walks 10 kilometers per day. How many meters does she speed walk in a day?

Answer:_____

Standard: 4.NF.7
DOK 3

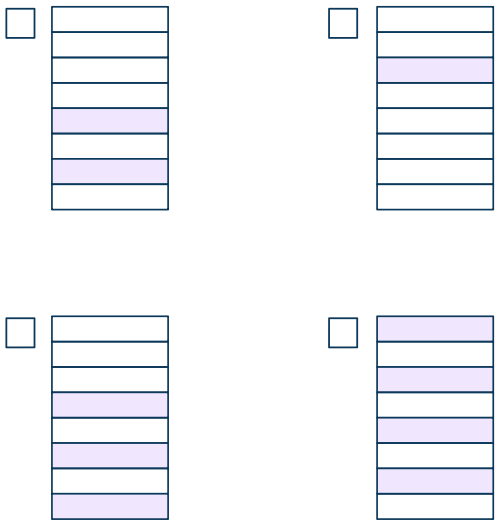
9 Select the correct comparison statement for the two hundreds grids below:



- ☐ 0.47 > 0.36
- ☐ 0.47 < 0.36
- ☐ 0.46 = 0.37
- ☐ 0.37 > 0.46

Standard: 4.NF.1
DOK 2

10 The shapes are divided into equal parts. Select the shape that represents the fraction $\frac{1}{4}$.



Standard: 4.NF.2
DOK 2

11 Write a fraction that makes the comparison true.

$\frac{3}{5} >$ ____

Standard: 4.NF.3.d
DOK 2

12 Roberto made salsa. He ate $\frac{1}{8}$ of the salsa on Monday, $\frac{3}{8}$ of the salsa on Tuesday, and $\frac{2}{8}$ of the salsa on Wednesday. What fraction of the salsa was left after Wednesday?

Answer:_____

Standard: 4.G.2
DOK 2

13 Select the correct statement about right triangles.

- [ ] They have more than one 90° angle.
- [ ] They have three angles that are less than 90°.
- [ ] They have exactly one 90° angle.
- [ ] They have three equal angles.

Standard: 4.NBT.2
DOK 2

14 Select the one that represents the expansion of 810,402.

- [ ] 800,000 + 10,000 + 4000 + 20
- [ ] 800,000 + 1,000 + 400 + 2
- [ ] 800,000 + 10,000 + 4000 + 2
- [ ] 800,000 + 10,000 + 400 + 2

Standard: 4.NBT.1
DOK 2

15 What is the value of the missing number in the equation below?

6000 ÷ ____ = 60

Standard: 4.OA.2
DOK 2

16 A school auditorium has 198 seats divided into 9 rows. Each row has s seats. Select the 2 correct equations that can be used to solve for s seats per row.

- ☐ 198 - s
- ☐ s x 9 = 198
- ☐ s + 9 = 198
- ☐ 198 ÷ 9 = s
- ☐ 198 x 9 = s

Standard: 4.OA.3
DOK 2

17 Demi has 4 times as many pens as Jose. Complete the table below:

Demi	Jose
	4
20	
	7
40	

Standard: 4.NBT.B.4
DOK 3

18 Dillion has 38 paint brushes that he wants to use to make 7 painting kits for his friends.

A. If each kit has the same amount of paint brushes, how many brushes are in each kit?

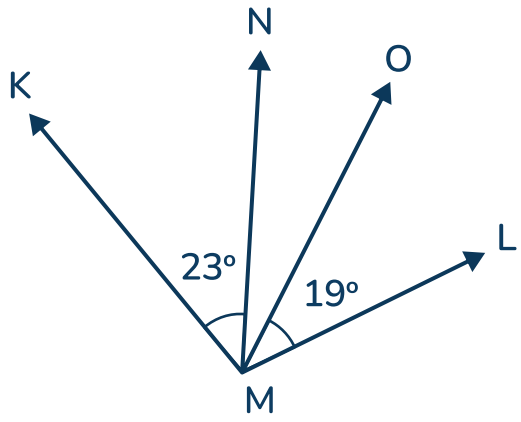
Answer:_____

B. How many paint brushes are leftover and not placed in a kit?

Answer:_____

Standard: 4.MD.7
DOK 3

19 In the picture below, angle KML is 98° .



A. What is the measure, in degrees, of angle NMO?

Answer:_____

B. What is the measure, in degrees, of angle KMO?

Answer:_____

Standard: 4.NBT.3
DOK 2

20 Use the number 15,508 to complete the table below:

Round to the nearest 10000	Round to the nearest 1000	Round to the nearest 100	Round to the nearest 10

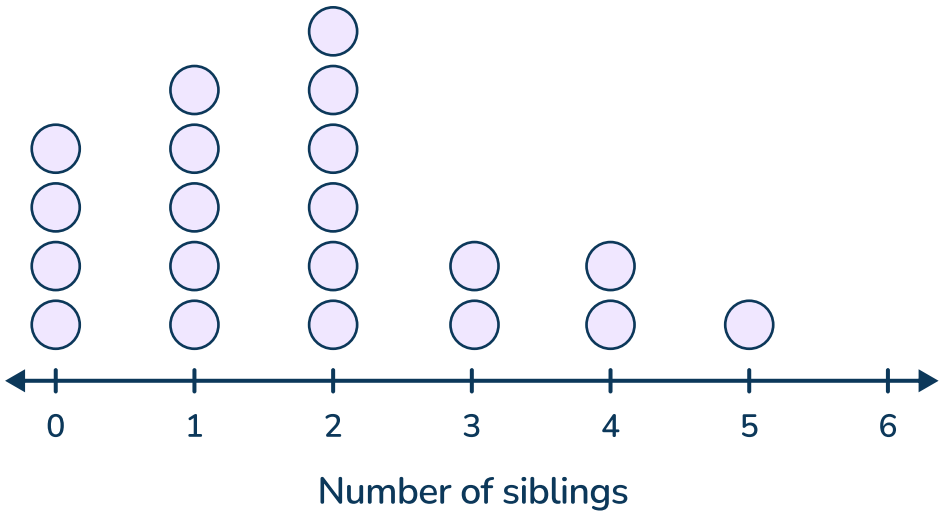
Standard: 4.MD.3
DOK 3

21 A school wants to put a fence around their playground. The playground is in the shape of a rectangle and has a length of 110 feet and a width of 200 feet. How much fencing will the school need?

Answer:_____

Standard: 4.MD.4
DOK 3

22 Michael is conducting a survey of his 4th grade class. He asks all the students the same question, "How many siblings do you have?" He displayed the data on the line plot below.



A: How many more students have 2 siblings than 5 siblings?

Answer:_____

B: How many total students are in Michael's class?

Answer:_____

Standard: 4.OA.3
DOK 3

23 Lynwood Elementary is having a craft sale where they are selling ornaments and candles. The ornaments are selling for $3. Noreen bought 3 ornaments and 2 candles with the $20 that she has. She received $2 in change. What is the cost of 1 candle? Show your work in the space below.

Standard: 4.OA.3, 4.OA.2
DOK 3

24 A bakery is preparing a large order of mini-cupcakes for a wedding. The table shows how many batches of each flavor of cupcakes were ordered.

PART A:
The table shows how many cupcakes are made from one batch, and then how many batches of each flavor she needs to make. Fill out the table to complete the work order to help the baker determine how many of each flavor mini-cupcake she needs for the order and find the grand total of all cupcake flavors.

Mini-Cupcake Flavor	Mini-Cupcake in One Batch	Batches Ordered	Total Number of Mini-Cupcakes
Chocolate	36	9	_____
Peanut Butter Fudge	28	7	_____
Lemon Blueberry	25	6	_____
Vanilla	42	8	_____
Grand Total of Mini-Cupcake Ordered =			_____

PART B:

The baker needs to transport all of the cupcakes to the wedding venue. She can fit 24 mini-cupcakes in one box. How many boxes will she need to transport **all** of the mini-cupcakes in boxes? *Explain your answer in the space provided.*

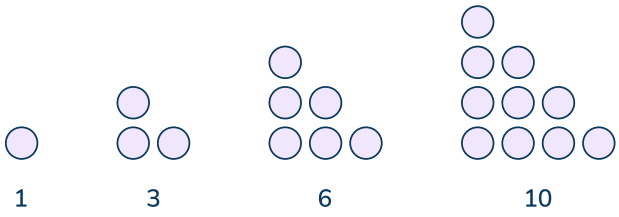
Rationales

Item	KEY	Rationale
1	$\frac{81}{100}$	$\frac{7}{10} + \frac{11}{100}$ $\frac{70}{100} + \frac{11}{100} = \frac{81}{100}$

Item	KEY	Rationale
2	$1 + 1 + \frac{1}{5} + \frac{1}{5}$ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + 1$ $\frac{1}{5} + \frac{1}{5} + \frac{5}{5} + 1$ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{5}{5}$	$\frac{12}{5} = 2\frac{2}{5}$ $1 + 1 + \frac{1}{5} + \frac{1}{5} = 2\frac{2}{5} = \frac{12}{5}$ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + 1 = 2\frac{2}{5} = \frac{12}{5}$ $\frac{1}{5} + \frac{1}{5} + \frac{5}{5} + 1 = 2\frac{2}{5} = \frac{12}{5}$ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{5}{5} = 2\frac{2}{5} = \frac{12}{5}$

Item	KEY	Rationale
3	The triangle has 1 obtuse angle. The triangle has two equal sides.	The triangle has 1 obtuse angle. The top angle is obtuse, bigger than 90° and less than 180°. The triangle has two equal sides. The triangle is marked showing two equal sides.

Item	KEY	Rationale
4	4 inches	$4\frac{1}{2} - \frac{1}{2} = 4$ 4 inches.

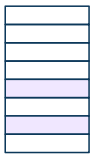
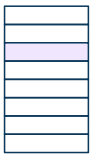
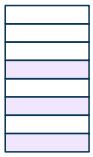
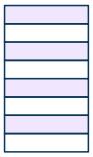
Item	KEY	Rationale
5	10	 1 3 6 10 Continuing the pattern, 10 is the next number.

Item	KEY	Rationale
6	28	$14 \times \frac{2}{5} = ? \times \frac{1}{5}$ $14 \times \frac{2}{5} = \frac{28}{5}$ $? \times \frac{1}{5} = \frac{28}{5}$ $28 \times \frac{1}{5} = \frac{28}{5}$

Item	KEY	Rationale
7	19,224	6 x 3204 = 19224

Item	KEY	Rationale
8	10,000 m	There are 1000 meters in a kilometer. So, 10 kilometers is equal to 10 x 1000 = 10,000 meters.

Item	KEY	Rationale
9	0.47 > 0.36	To determine which of the statements is true, determine the decimal represented by each of the hundred grids. In this case it is 0.47 and 0.36. 0.47 is larger than 0.36.

Item	KEY	Rationale
10	☑  ☐  ☐  ☐ 	The fraction model is divided into 8 equal parts. Two of the eight parts are shaded which is $\frac{2}{8}$. $\frac{2}{8} = \frac{1}{4}$.

Item	KEY	Rationale
11	Possible answer, $\frac{2}{5}$	Any fraction that is less than $\frac{3}{5}$ will make the statement true. Sample answer $\frac{3}{5} > \frac{2}{5}$.

Item	KEY	Rationale
12	$\frac{2}{8}$ or $\frac{1}{4}$	$\frac{1}{8} + \frac{3}{8} + \frac{2}{8} = \frac{6}{8}$ $1 - \frac{6}{8} = \frac{2}{8}$ $\frac{2}{8} = \frac{1}{4}$

Item	KEY	Rationale
13	They have exactly one 90° angle.	This is the correct answer because right triangles have exactly one 90° angle.

Item	KEY	Rationale
14	800,000 + 10,000 + 400 + 2	This is the correct expansion. 8 is in the hundred thousand place, so 800,000. 1 is in the ten thousand place, so 10,000. 4 is in the hundreds place, so 400. 2 is in the ones place, so 2.

Item	KEY	Rationale
15	100	6000 ÷ 60 = 100 so 6000 ÷ 100 = 60. 100 is the missing number.

Item	KEY	Rationale
16	s x 9 = 198 198 ÷ 9 = s	198 ÷ 9 = s 198 seats divided by 9 gives the amount of seats, s, there are in each row. OR s x 9 = 198 9 multiplied by the number of seats, s, that are in each row gives the total amount of seats in the auditorium, 198.

Item	KEY	Rationale
17	Demi: 16 20 28 40 Jose: 4 5 7 10	For the first row, multiply 4 by 4, 4 x 4 = 16. For the second row, divide 20 by 4, 20 ÷ 4 = 5. For the third row, multiply 7 by 4, 7 x 4 = 28. For the fifth row, divide 40 by 4, 40 ÷ 4 = 10.

Item	KEY	Rationale
18 A	5 paint brushes	38 ÷ 7 = 5 remainder 3
18 B	3 paint brushes are left over	So, 5 brushes in each kit and 3 brushes left over

Item	KEY	Rationale
19 A	56°	Find the sum angle KMN and angle OML. 23 + 19 = 42 Subtract that sum from the angle KML. 98 - 42 = 56 Angle NMO = 56°
19 B	79°	Sum angle KMN and angle NMO 23+56=79 Angle KMO = 79°

Item	KEY	Rationale
20	20,000 16,000 15,500 15,510	15,508 rounded to the nearest 10,000 is 20,000. 15,508 rounded to the nearest 1000 is 16,000. 15,508 rounded to the nearest 100 is 15,500. 15,508 rounded to the nearest 10 is 15,510.

Item	KEY	Rationale
21	620 feet	110 + 110 + 200 + 200 = 620

Item	KEY	Rationale
22 A	5 students	6 - 1 = 5.
22 B	20 students	Counted all the markers or added up all the markers, 4 + 5 + 6 + 2 + 2 + 1 = 20.

Item	KEY	Rationale
23	$4.50	3 x 3 = $9 spent on ornaments. 20 - 9 = $11 (money left to buy candles). $11 - $2 = $9 (spent on candles). $9 ÷ 2 = $4.50 Each candle is $4.50.

Item	KEY	Rationale
24 A	Chocolate = 324 Peanut Butter Fudge = 196 Lemon Blueberry = 150 Vanilla = 336 Total = 1,006	36 x 9 = 324 28 x 7 = 196 25 x 6 = 150 42 x 8 = 336 324 + 196 + 150 + 336 = 1006
24 B	42 boxes	1006 ÷ 24 = 41 remainder 22 which means 42 boxes are needed.

Breakdown of Assessment				
Operations and Algebraic thinking (OA)	Number and Operations in Base Ten (NBT)	Number and Operations - Fractions (NF)	Measurement and Data (MD)	Geometry (G)
This Assessment: 29%	This Assessment: 21%	This Assessment: 21%	This Assessment: 21%	This Assessment: 8%

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