THIRD SPACE LEARNING

4th Grade Colorado State Practice Math Test

Colorado Practice Test Grade 4

Grade 4

Questions

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

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

Unit 1
14 questions

Calculators are not permitted.

1 Select the fraction that when added to $\frac{5}{8}$ makes one whole.

A. $\frac{8}{8}$

B. $\frac{5}{8}$

C. $\frac{3}{8}$

D. $\frac{6}{8}$

2 Select the pairs of numbers that represent factor pairs of 60.

Pairs of numbers	Factor pairs of 60	Not factor pairs of 60
20 × 40		
3 × 20		
2 × 60		
4 × 30		
5 × 12		

3 Nathan is planting a garden with his grandmother. They planted 4 times as many cucumber plants as squash plants. If there are 24 cucumber plants, how many squash plants are there?

Enter your answer in the box.

Answer

4 What is the value of 82 x 30?

Enter your answer in the box.

Answer

5 Dylan and his two friends, James and Tommy, are playing the same game on the game app on their phones.

- Dylan scores 2,523 points
- James scores 4,021 points
- Tommy scores 3,989 points

PART A:

What is the total number of points all three of them score together?

Use the space below to write your answer.

Answer

PART B:

How many more points did James and Tommy score together over Dylan?

Use the space below to write your answer.

Answer

6 Which **three** numbers make the comparison true?

_____ > 62,893

A. 62,785
B. 62,980
C. 62,894
D. 62,891
E. 62,900

7 Julian makes clothes with a particular type of fabric. He bought 72 yards of this fabric this week which was three times the amount of fabric he bought last week. How many yards of fabric did he buy last week?

Show your work in the box below.

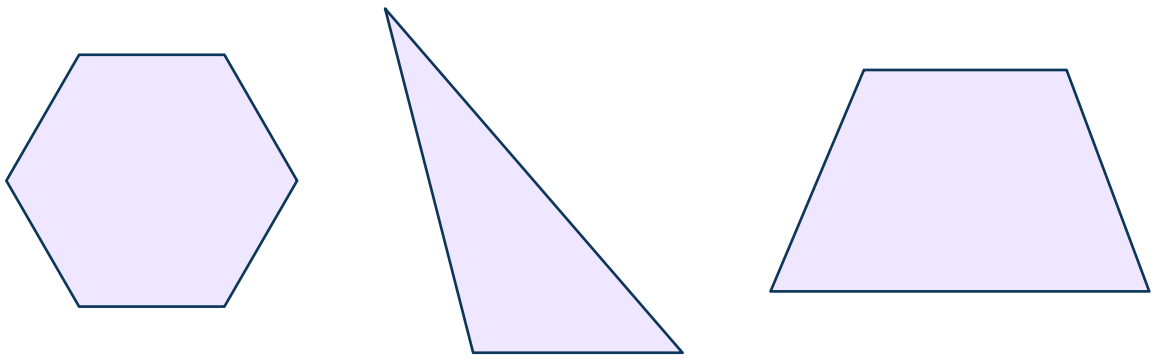
Answer

8 What is the sum of 5,109+2000+700+20+6 ?

Place the correct numbers in the spaces below.

_____ thousands _____hundreds _____tens _____ones

9 Theo sorts these figures into the same group.



Which statement best describes the figures in this group?

A. Each figure has at least one pair of parallel sides.
B. Each figure has at least one acute angle.
C. Each figure is a regular polygon.
D. Each figure has at least one obtuse angle.

10 Show your work and enter your answer in the box.

2,783 x 8 =

Answer

11 Jayden has 20 t-shirts.

- $\frac{1}{5}$ of the t-shirts have her number on them from her soccer team
- $\frac{1}{2}$ of the t-shirts have her school mascot on them
- $\frac{3}{10}$ of the t-shirts have a picture of her pet rabbit on them

Part A:

Which type of t-shirt does she have the least amount of?

Explain your answer in the space below.

Answer

Part B:

Place the fractions ($\frac{1}{5}, \frac{1}{2}, \frac{3}{10}$) in order from least to greatest in the space below.

Answer

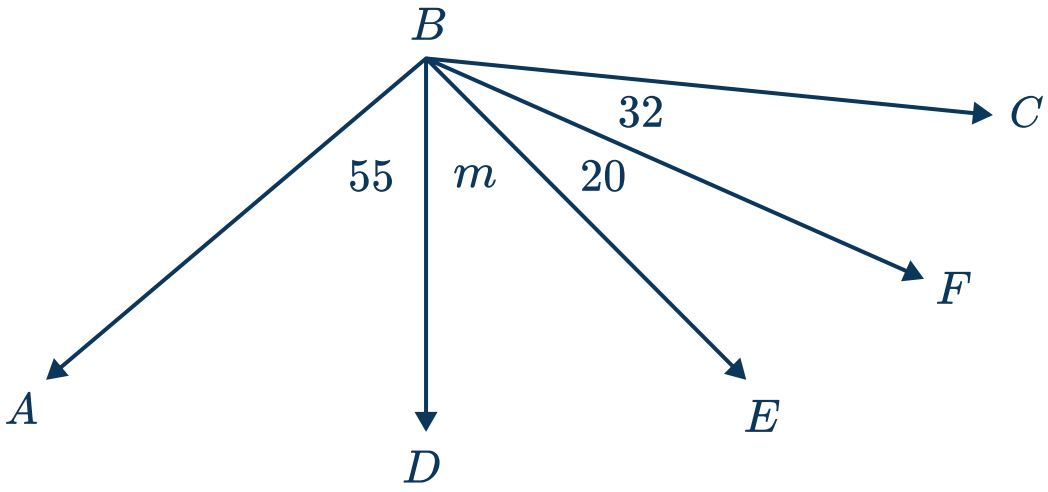
Part C:

How many more t-shirts with her pet-bunny on them does she have than soccer t-shirts?

Show your work in the space below.

Answer

12 The measure of angle ABC is 130°.



Part A:

What is the measure of angle EBC?

Enter your answer in the box.

Answer

Part B:

What is the measure of m, (angle DBE)?

A. 23°
B. 107°
C. 52°
D. 55°

13 A class is comparing the digits' values in the numbers 145,802 and 18,425.

Which statements are true? Select **all** that apply.

A. The digit 2 in 145,802 is ten times larger than in 18,425.
B. The digit 8 in 18,425 is ten times larger than in 45,802.
C. The digit 5 in 18,425 is one thousand times smaller than in 45,802.
D. The digit 4 in 45,802 is one thousand times larger than in 18,425.
E. The digit 1 in 145,802 is one hundred times larger than in 18,425.

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14 Enter your answer on the space provided.

1,968 ÷ 5 = _____

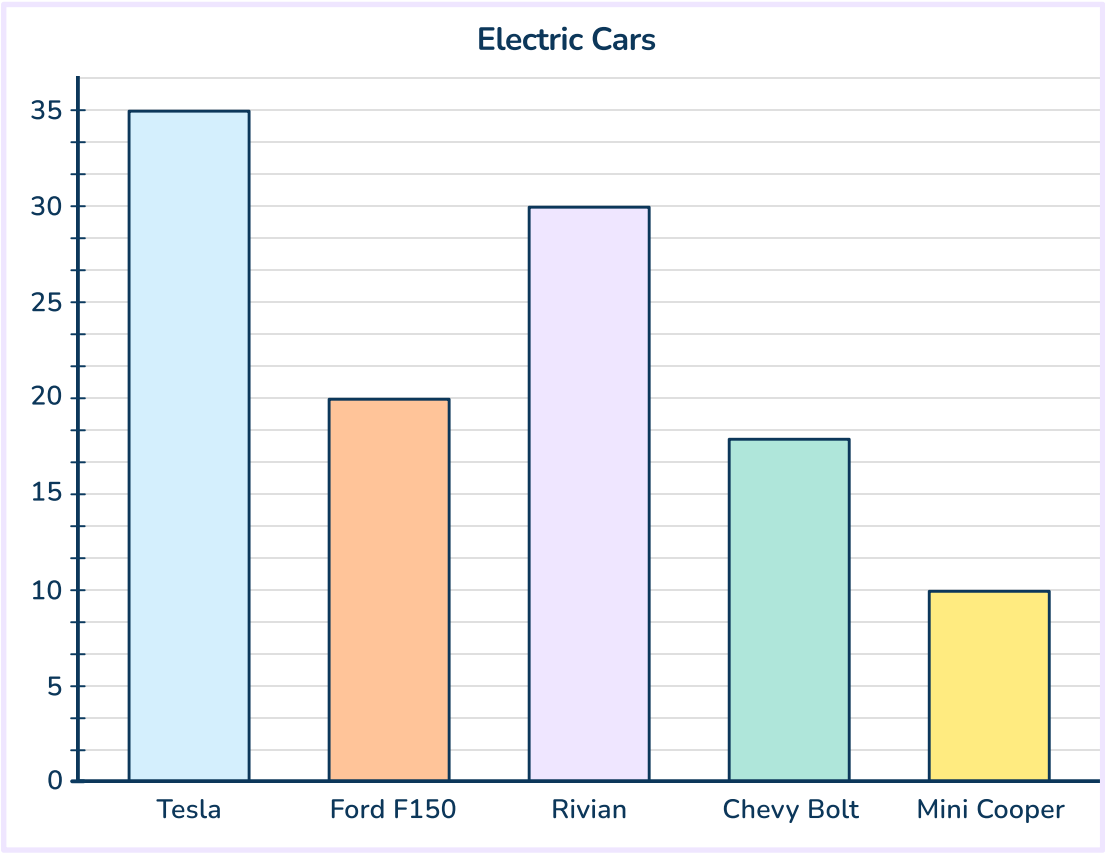
Unit 2
8 questions

Calculators are not permitted.

1 Select **two** numbers that are prime numbers.

A. 21
B. 29
C. 39
D. 41
E. 51

2 A company is doing research about electric cars. They conducted a survey to ask 113 people that drive electric cars, the brand of electric car they drive. The results are in the graph below.



Part A:

How many of the people surveyed drive the following electric vehicles? Enter your answer in the spaces below.

Ford F150 = _____

Tesla = _____

Rivian = _____

Mini Cooper = _____

Part B:

Explain a strategy you can use to find the exact amount of people that drive a Chevy Bolt. Use the space below to explain your answer.

Answer

Part C:

How many people drive a Chevy Bolt? Enter your answer in the box below.

Answer

3 Select the fractions that make both comparisons true.

$\frac{3}{5} = \square$ $\frac{2}{5} < \square$

A. $\frac{6}{10}$

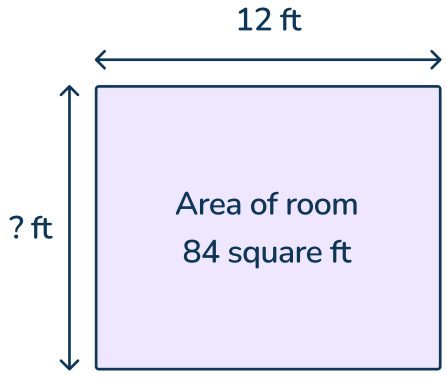
B. $\frac{1}{2}$

C. $\frac{4}{10}$

D. $\frac{60}{100}$

E. $\frac{20}{100}$

4 Betty's room is in the shape of a rectangle. The area of the room is 84 square feet and the length of the room is 12 feet.

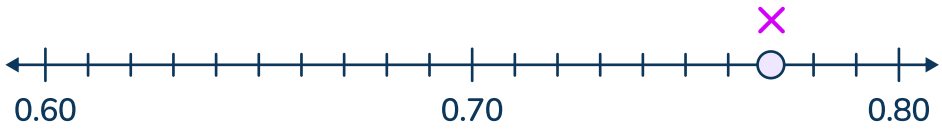


Find the perimeter of the room.

Enter your answer in the box.

Answer

5 What is the value of point X on the number line below? Use the space to write your answer.



6 Ursula subtracted with the standard algorithm.

	5,	7	9	1
–	3,	4	2	8
	2,	3	7	7

What mistake did Ursula make? Use the space below to write your answer.

Answer

7 The items needed to make 1 cake from a cake mix box are in the table below.

Cake mix box

Item	Amount
Water	$\frac{3}{4}$ cup
Vegetable oil	$\frac{1}{3}$ cup

Part A:

How much more water is needed to make a cake from a cake mix box than vegetable oil?

Enter your answer in the box below.

Answer

Part B:

Jamie wants to make 5 cakes. How many cups of water will she need and how many cups of vegetable oil will she need? Use the box below to show your work.

Answer

8 Which expression is equivalent to $4 \times \frac{2}{3}$?

A. $8 \times \frac{1}{3}$

B. $8 \times \frac{1}{2}$

C. $8 \times \frac{2}{3}$

D. $2 \times \frac{2}{3}$

Unit 3
7 questions

Calculators are not permitted.

1 A farm has plants for sale. Plant A costs $17 and plant B costs 6 times more than plant A. What is the cost of plant B?

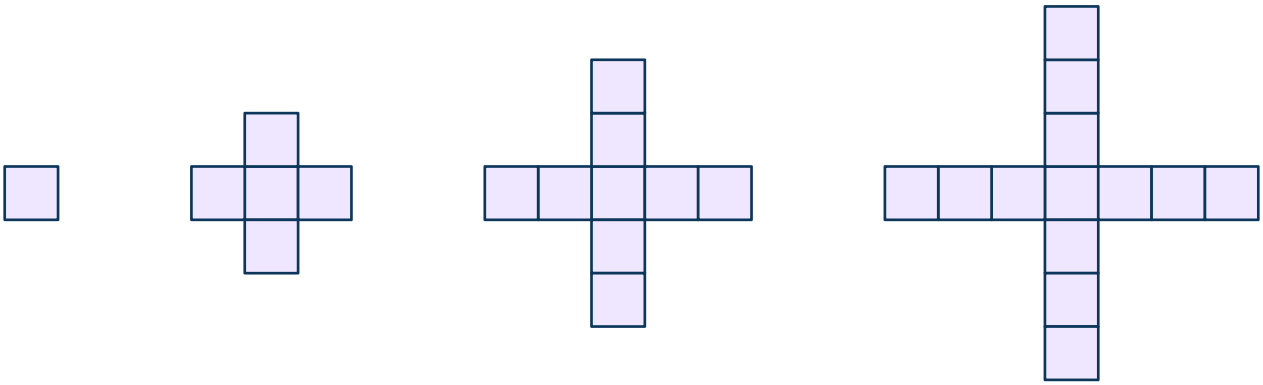
A. $92
B. $102
C. $136
D. $68

2 Brian is a long distance runner. He decided to go on a 2 hour run.
How many minutes did Brian run?

Enter your answer in the box.

Answer

3 Look at the pattern of figures below. If the pattern continues, how many squares will make up the 6th figure?



Place your answer in the box below.

Answer

4 Rylen has a wire that is $\frac{15}{6}$ meters long. He needs to cut the wire into two pieces. List two different pairs of fractions that could show the lengths in meters, of the two pieces.
Explain how you found your answers.
Use the space provided to write your answer.

Answer

5 Precious makes and sells homemade soaps. She is putting them into boxes. She places 6 bars of soap in each box. How many boxes does she need for 415 bars of soap?

Place your answer in the box below.

Answer

6 Mrs. Crane's students choose extra curricular activities to do after school. The table below shows the fractions of all students who chose each activity.

Activity	Fraction of all students
Chess Club	$\frac{2}{10}$
School Spirit Club	$\frac{4}{10}$
Soccer Club	$\frac{3}{10}$
Theater Club	$\frac{1}{10}$

Part A:

Write an equation to find s, the fraction of students that chose the chess club and the theater club.

Answer

Part B:

Find the fraction of students that chose chess and theater.

Answer

7 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:

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. The table shows how many cupcakes are made from one batch, and then how many batches of each flavor she needs to make. Find the grand total of all cupcake flavors.

Mini-Cupcake Flavor	Mini-Cupcakes 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-Cupcakes 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.

Answer

Answer Key

Unit 1			
Item number	Correct answer	Standard(s)	DOK
1	C	**4.NF.B.3**	DOK 2
2	20 x 40: NOT 3 x 20: Factor pair 2 x 60:NOT 4 x 30: NOT 5 x 12: Factor pair	**4.OA.B.4**	DOK 2
3	4 x 6 = 24 6 squash plants	**4.OA.A.2**	DOK 2
4	2460	**4.NBT.A**	DOK 1
5	**Part A:** 2523 + 4021 + 3989 = 10,533 total points **Part B:** 4021 + 3989 = 8010 8010 - 2523 = 5487 more points	**4.NBT.B**	DOK 3
6	B, C, E	**4.NBT.A**	DOK 1
7	72 ÷ 3 = 24 24(3) = 72 24 yards of fabric	**4.OA.A.2**	DOK 2
8	7 thousands 8 hundreds 3 tens 5 ones	**4.NBT.A** **4.NBT.B**	DOK 2
9	D	**4.G.A.2**	DOK 2
10	22,264	**4.NBT.B.5**	DOK 1

Unit 1			
Item number	Correct answer	Standard(s)	DOK
11	**Part A:** $\frac{1}{5}$ x 20 = 4 soccer tshirts $\frac{1}{2}$ x 20 = 10 mascot tshirts $\frac{3}{10}$ x 20 = 6 pet tshirts **Part B:** $\frac{1}{5}, \frac{3}{10}, \frac{1}{2}$ **Part C:** 6 - 4 = 2 2 more pet tshirts	**4.NF.A.2** **4.NF.B.4**	DOK 3
12	**Part A:** 52 degrees **Part B:** A	**4.MD.C.7**	DOK 3
13	B, C	**4.NBT.A.1**	DOK 2
14	393 r 3	**4.NBT.B.6**	DOK 1

Unit 2			
Item number	Correct answer	Standard(s)	DOK
1	B, D	**4.OA.B**	DOK 2
2	**Part A:** Ford 150 = 20 Tesla = 35 Rivian = 30 Mini Cooper = 10 **Part B:** You can add up the number of people that selected Ford 150, Tesla, Rivian, Mini Cooper and subtract it from the total. **Part C:** 20 + 35 + 30 + 10 = 95 113 - 95 = 18	**4.MD.B** **4.OA.B** **4.NBT.B.4**	DOK 3
3	A, D	**4.NF.A.1**	DOK 2
4	Perimeter = 38 feet	**4.MD.A.3** **4.OA.A.3**	DOK 3
5	X = 0.77	**4.NF.B**	DOK 2
6	Ursla regrouped incorrectly, regroup making the 1 an 11 so: 5791 - 3428 = 2377	**4.NBT.B.4**	DOK 3
7	**Part A:** $\frac{5}{12}$ more **Part B:** $5 \times \frac{3}{4} = \frac{15}{4} = 3\frac{3}{4}$ cups of water $5 \times \frac{1}{3} = \frac{5}{3} = 1\frac{2}{3}$ cups of vegetable oil	**4.NF.B.3c** **4.NF.B.3d** **4.NF.B.4b** **4.NF.B.4.c**	DOK 3

Unit 2			
Item number	Correct answer	Standard(s)	DOK
8	A	**4.NF.B.4**	DOK 3
Unit 3			
Item number	Correct answer	Standard(s)	DOK
1	B	**4.OA.A.2**	DOK 2
2	120 minutes	**4.MD.A.1**	DOK 1
3	21	**4.OA.C.5**	DOK 2
4	$\frac{15}{6} = \frac{8}{6} + \frac{7}{6}$ $\frac{15}{6} = \frac{4}{6} + \frac{11}{6}$ The denominator stays the same, the numerators have to sum to 15	**4.NF.B.3**	DOK 3
5	70 boxes	**4.NBT.B.6**	DOK 1
6	**Part A:** $\frac{2}{10} + \frac{1}{10} = s$ **Part B:** $\frac{2}{10} + \frac{1}{10} = \frac{3}{10}$	**4.NF.B.3**	DOK 3

Unit 2			
Item number	Correct answer	Standard(s)	DOK
7	**Part A:** 324 chocolate 196 Peanut butter fudge 150 Lemon blueberry 336 Vanilla 1006 - Grand total **Part B:** 1006 ÷ 24 = 41 r 22 24 cupcakes in 41 boxes and 22 cupcakes in 1 box so a total of 42 boxes	**4.OA.A**	DOK 3

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)
24%	30%	32%	11%	3%

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