Kentucky Summative Assessments



Grade 4 Mathematics Released Items 2024



MA0420161_4

Which list shows the units of measurement in order from smallest to largest?

- **A** centimeter, meter, kilometer, millimeter
- **B** kilometer, meter, centimeter, millimeter
- **c** meter, centimeter, millimeter, kilometer
- **D** millimeter, centimeter, meter, kilometer



Kentucky Summative Assessments

Spring 2024 Grade 4 Mathematics

Item: MA0420161

Book Question Number: 1

Standard: KY.4.MD.1.a

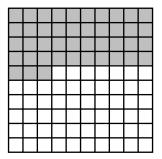
Item Type: MC

Key: D

				Item Breakout Statistics - Answer Choice Options				
Student Group	Number of Students	Percent Correct	Average Item Score					
- Cludent Group	Students	Contect	item score	A (%)	B (%)	C (%)	D (%)	
All Students	29,241	48%	0.48	24%	13%	15%	48%	
Gender								
Female	14,146	40%	0.40	29%	14%	17%	40%	
Male	15,094	55%	0.55	20%	11%	13%	55%	
Ethnicity								
African American	3,161	30%	0.30	29%	20%	21%	30%	
American Indian or Alaska Native	55	44%	0.44	18%	16%	22%	44%	
Asian	631	62%	0.62	19%	9%	11%	62%	
Hispanic or Latino	2,910	39%	0.39	27%	14%	20%	39%	
Native Hawaiian or Pacific Islander	59	41%	0.41	20%	19%	20%	41%	
White (non-Hispanic)	20,771	52%	0.52	24%	11%	13%	52%	
Two or more races	1,652	43%	0.43	26%	14%	17%	43%	
Migrant	143	36%	0.36	27%	14%	24%	36%	
	,				'	'		
English Learner	2,811	35%	0.35	28%	16%	22%	35%	
	•		•		,	,		
Economically Disadvantaged	18,756	41%	0.41	26%	15%	17%	41%	
	'							
Students with Disabilities	5,696	36%	0.36	25%	18%	21%	36%	

MA0420065_3,4

The model shown represents a whole. The shaded parts of the model represent a decimal value.



Which values are less than the decimal value represented in the model?

Select **two** correct answers.

- **A** 0.5
- **B** 0.8
- **c** 0.2
- **D** 0.19
- **E** 0.52



Kentucky Summative Assessments

Spring 2024 Grade 4 Mathematics

Item: MA0420065

Book Question Number: 2

Standard: KY.4.NF.7.a

Item Type: MS Key: C,D

	Number of	Percent	Average	Item Breakout Statistics - Score Percentages				
Student Group	Students	Correct	Item Score	Score 0 (%)	Score 1 (%)	Score 2 (%)		
All Students	28,986	54.6%	1.09	21%	49%	30%		
Gender	,					<u>'</u>		
Female	14,007	51.7%	1.03	22%	53%	25%		
Male	14,978	57.2%	1.14	21%	44%	35%		
Ethnicity								
African American	3,116	45.3%	0.91	27%	56%	17%		
American Indian or Alaska Native	54	56.5%	1.13	20%	46%	33%		
Asian	624	66.9%	1.34	17%	33%	51%		
Hispanic or Latino	2,881	49.4%	0.99	23%	54%	22%		
Native Hawaiian or Pacific Islander	58	50.9%	1.02	21%	57%	22%		
White (non-Hispanic)	20,615	56.5%	1.13	20%	47%	33%		
Two or more races	1,636	52.2%	1.04	22%	52%	26%		
Migrant	141	44.7%	0.89	28%	54%	18%		
English Learner	2,774	46.2%	0.92	26%	56%	18%		
Economically Disadvantaged	18,565	50.1%	1.00	23%	53%	24%		
Students with Disabilities	5,611	47.2%	0.94	24%	57%	18%		



MA0420195_1

A chocolate bar is made of 12 equal pieces. Simon ate 5 pieces and Julia ate 3 pieces. What fraction shows how much more of the chocolate bar Simon ate than Julia?

- **A** $\frac{2}{12}$
- **B** $\frac{4}{12}$
- **c** $\frac{2}{8}$
- **D** $\frac{5}{8}$



Kentucky Summative Assessments

Spring 2024 Grade 4 Mathematics

Item: MA0420195

Book Question Number: 3

Standard: KY.4.NF.3.d

Item Type: MC

Key: A

	Number of	Percent	Average	Item Break	out Statistics	- Answer Cho	ice Option
Student Group	Students	Correct	Item Score	A (%)	B (%)	C (%)	D (%)
All Students	46,607	47%	0.47	47%	37%	7%	9%
Gender						,	
Female	22,688	47%	0.47	47%	37%	7%	9%
Male	23,918	46%	0.46	46%	37%	7%	9%
Ethnicity							
African American	4,900	37%	0.37	37%	42%	9%	12%
American Indian or Alaska Native	83	54%	0.54	54%	35%	4%	7%
Asian	997	55%	0.55	55%	33%	6%	6%
Hispanic or Latino	4,332	40%	0.40	40%	40%	8%	12%
Native Hawaiian or Pacific Islander	96	35%	0.35	35%	49%	7%	8%
White (non-Hispanic)	33,553	49%	0.49	49%	36%	6%	9%
Two or more races	2,644	43%	0.43	43%	39%	8%	10%
Migrant	222	36%	0.36	36%	40%	8%	16%
English Learner	4,010	36%	0.36	36%	42%	9%	13%
Economically Disadvantaged	29,594	43%	0.43	43%	39%	8%	11%
Students with Disabilities	8,158	41%	0.41	41%	35%	10%	14%



MA0420021_3

The number 743 is multiplied by 10. What is the value of the digit 4 in the product?

- **A** 4
- **B** 40
- **C** 400
- **D** 4,000



Kentucky Summative Assessments

Spring 2024
Grade 4
Mathematics

Item: MA0420021

Book Question Number: 4

Standard: KY.4.NBT.1

Item Type: MC

Key: C

	Number of	Percent	Average	Item Breakout Statistics - Answer Choice Options				
Student Group	Students	Correct	Item Score	A (%)	B (%)	C (%)	D (%)	
All Students	29,262	43%	0.43	3%	43%	43%	11%	
Gender			•		'	•	l	
Female	14,157	40%	0.40	3%	48%	40%	9%	
Male	15,104	47%	0.47	3%	39%	47%	12%	
Ethnicity								
African American	3,163	35%	0.35	4%	46%	35%	15%	
American Indian or Alaska Native	55	42%	0.42	5%	45%	42%	7%	
Asian	631	54%	0.54	3%	37%	54%	6%	
Hispanic or Latino	2,911	37%	0.37	3%	48%	37%	12%	
Native Hawaiian or Pacific Islander	59	51%	0.51	0%	39%	51%	10%	
White (non-Hispanic)	20,787	46%	0.46	2%	42%	46%	10%	
Two or more races	1,654	40%	0.40	2%	45%	40%	12%	
Migrant	143	28%	0.28	7%	51%	28%	14%	
						,		
English Learner	2,811	34%	0.34	3%	50%	34%	13%	
						,		
Economically Disadvantaged	18,767	39%	0.39	3%	46%	39%	12%	
					•			
Students with Disabilities	5,702	38%	0.38	4%	42%	38%	15%	



MA0420C2_00

The table shows the costs of different sized bags of salted popcorn and flavored popcorn sold at a store. Sales tax is included in the costs of the bags.

Popcorn Costs

Bag Size	Salted (dollars)	Flavored (dollars)
Small	2	3
Medium	5	6
Large	8	12
Jumbo	21	25



MA0420C2_01

A business owner has \$340 to spend on bags of popcorn. She buys as many medium-size, flavored bags of popcorn as possible.

- What is the greatest number of medium-size, flavored bags of popcorn the business owner can buy?
- Show your work or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.



Kentucky Summative Assessments

Spring 2024 Grade 4 Mathematics

Item: MA0420C2_01

Book Question Number: 5

Standard: KY.4.NBT.6

Item	Type: SA
Key:	Rubric

	Number of	Percent	Average	Item Breakou	t Statistics - Scor	e Percentages
Student Group	Students	Correct	Item Score	Score 0 (%)	Score 1 (%)	Score 2 (%)
All Students	46,114	27.6%	0.55	67%	12%	22%
Gender	,					<u>'</u>
Female	22,493	25.8%	0.52	69%	11%	20%
Male	23,620	29.3%	0.59	64%	13%	23%
Ethnicity						
African American	4,829	12.3%	0.25	84%	7%	9%
American Indian or Alaska Native	81	30.9%	0.62	64%	10%	26%
Asian	992	45.1%	0.90	49%	12%	39%
Hispanic or Latino	4,287	18.9%	0.38	76%	10%	14%
Native Hawaiian or Pacific Islander	94	22.3%	0.45	70%	15%	15%
White (non-Hispanic)	33,222	30.8%	0.62	63%	13%	24%
Two or more races	2,607	22.3%	0.45	72%	11%	17%
Migrant	220	14.1%	0.28	82%	7%	10%
English Learner	3,964	15.0%	0.30	81%	8%	11%
Economically Disadvantaged	29,227	21.7%	0.43	73%	10%	16%
Students with Disabilities	8,039	20.5%	0.41	75%	8%	16%

Rubric

	Rubric
Score Point 2	Student demonstrates a complete understanding of dividing up to four-digit dividends by one-digit divisors.
Score Point 1	Student demonstrates a partial understanding of dividing up to four-digit dividends by one-digit divisors.
Score Point 0	Student response is completely incorrect or irrelevant.
Score Points	 Score 2 points: Correct answer and complete explanation based on the context. Score 1 point: Correct answer and partial or no explanation based on the context. OR Complete explanation based on the context and incorrect or no answer.
Correct Answers	Each medium bag of flavored popcorn costs \$6. There is a total of \$340 to spend, so I divided 340 by 6. The answer is 56 bags with \$4 leftover. The business owner can buy a total of 56 medium bags of flavored popcorn. Note: Other correct explanations using models are acceptable.

if the medium flavored popcorn bags are \$6 he will be able to buy 54

Anchor Annotation, Paper 1 Score Point 0

This response receives no credit. It includes none of the two required elements.

An incorrect answer is given (54) with no work shown.

A2

 $340 \div 5 = 68$

Anchor Annotation, Paper 2 Score Point 0

This response receives no credit. It includes none of the two required elements.

The work shown is incorrect as 340 is divided by 5 instead of 6. This results in an incorrect answer.

A3

 $340 \div 11 = 30$

this is my sum of how many medium bags of popcorn.

Anchor Annotation, Paper 3 Score Point 0

This response receives no credit. It includes none of the two required elements.

An incorrect calculation is given as a result of incorrect work shown ($340 \div 11 = 30$).

A4

 $6 \times 50 = 300$ $6 \times 6 = 36$ 300 + 36 = \$336

Anchor Annotation, Paper 4 Score Point 1

This response receives partial credit. It includes one of the two required elements.

• The work shown is correct $(6 \times 50 = 300...6 \times 6 = 36...300 + 36 = $336)$.

The total number of bags was not given.

she will have 56 bags of popcorn with \$4 left over.

Anchor Annotation, Paper 5 Score Point 1

This response receives partial credit. It includes one of the two required elements.

• The correct answer is provided with a partial explanation (56).

The partial explanation does not include the values or operations used in calculating the answer.

A6

The most medium-size, flavored bags of popcorn the business owner can buy is 56 bags. I used a division table and I got the answer, 56.

Anchor Annotation, Paper 6 Score Point 1

This response receives partial credit. It includes one of the two required elements.

• The correct answer is provided with a partial explanation (I used a division table and I got the answer, 56).

The partial explanation does not include the values or operations used in calculating the answer.

A7

 $340 \div 6 = 56r$. 4 He can buy 56 of medium size of bag.

Anchor Annotation, Paper 7 Score Point 2

This response receives full credit. It includes each of the two required elements.

- The correct answer is provided (56).
- Complete work is shown $(340 \div 6 = 56r \cdot 4)$.

A8

Each cost \$6 and she has \$340. I multiplied 6 x 56 and got \$336. The business owner will have \$4 left over.

Anchor Annotation, Paper 8 Score Point 2

This response receives full credit. It includes each of the two required elements.

- The correct answer is provided (56).
- Complete work is demonstrated using multiplication as a check (6×56 and got \$336).

The most flavored bags of popcorn is 56 because $340 \div 6 = 56r$. 4 and the flavored bags are \$6 each he has \$4 left and 6 > 4, so 56 is how much he can buy.

Anchor Annotation, Paper 9 Score Point 2

This response receives full credit. It includes each of the two required elements.

- The correct answer is provided (56).
- Complete work is shown using division $(340 \div 6 = 56r.4)$.



MA0420096_4

Blake and Jared collect baseball cards. Blake has 2 packs of cards that have 25 cards in each pack. Jared has 3 times the number of cards Blake has. How many cards does Jared have?

- **A** 50
- **B** 75
- **C** 125
- **D** 150



Kentucky Summative Assessments

Spring 2024
Grade 4
Mathematics

Item: MA0420096

Book Question Number: 6

Standard: KY.4.OA.2

Item Type: MC

Key: D

	Number of	Percent	Average	Item Breakout Statistics - Answer Choice Options			
Student Group	Students	Correct	Item Score	A (%)	B (%)	C (%)	D (%)
All Students	24,435	50%	0.50	13%	29%	8%	50%
Gender	,				•		
Female	11,765	48%	0.48	14%	29%	9%	48%
Male	12,669	51%	0.51	12%	30%	8%	51%
Ethnicity							
African American	2,658	34%	0.34	22%	32%	13%	34%
American Indian or Alaska Native	48	31%	0.31	15%	44%	10%	31%
Asian	545	59%	0.59	11%	26%	4%	59%
Hispanic or Latino	2,433	36%	0.36	17%	36%	10%	36%
Native Hawaiian or Pacific Islander	54	37%	0.37	22%	26%	15%	37%
White (non-Hispanic)	17,316	54%	0.54	11%	28%	7%	54%
Two or more races	1,380	48%	0.48	14%	30%	9%	48%
Migrant	120	32%	0.32	20%	37%	12%	32%
English Learner	2,413	30%	0.30	21%	37%	11%	30%
Economically Disadvantaged	15,753	43%	0.43	15%	32%	10%	43%
Students with Disabilities	5,005	37%	0.37	21%	30%	12%	37%



MA0420104_4

Which statement explains whether 27 is a prime number or a composite number?

- **A** It is a prime number because 27 is an odd number.
- **B** It is a prime number because 27 has only two factors.
- **C** It is a composite number because 27 is an odd number.
- **D** It is a composite number because 27 has more than two factors.



Kentucky Summative Assessments

Spring 2024
Grade 4
Mathematics

Item: MA0420104

Book Question Number: 7

Standard: KY.4.OA.4.d

Item Type: MC

Key: D

	Number of	Percent	Average	Item Breakout Statistics - Answer Choice Options				
Student Group	Students	Correct	Item Score	A (%)	B (%)	C (%)	D (%)	
All Students	33,218	33%	0.33	24%	29%	13%	33%	
Gender			,		•		•	
Female	16,104	33%	0.33	24%	29%	14%	33%	
Male	17,113	34%	0.34	25%	28%	13%	34%	
Ethnicity					•		•	
African American	3,536	25%	0.25	28%	30%	17%	25%	
American Indian or Alaska Native	64	44%	0.44	17%	19%	20%	44%	
Asian	730	49%	0.49	18%	25%	8%	49%	
Hispanic or Latino	3,156	28%	0.28	27%	29%	15%	28%	
Native Hawaiian or Pacific Islander	71	31%	0.31	25%	23%	21%	31%	
White (non-Hispanic)	23,777	35%	0.35	24%	29%	13%	35%	
Two or more races	1,883	31%	0.31	25%	29%	15%	31%	
Migrant	162	29%	0.29	27%	36%	8%	29%	
English Learner	3,030	28%	0.28	27%	29%	16%	28%	
Economically Disadvantaged	21,232	30%	0.30	27%	29%	15%	30%	
Students with Disabilities	6,269	28%	0.28	27%	28%	17%	28%	



MA0420093_:

A figure is shown.



Part A

Identify one way the figure can be classified. Use three characteristics to explain your answer.

Enter the name of the figure and your explanation in the space provided.

Part B

Identify two more ways the figure can be classified. Explain your answer by giving at least one characteristic for each figure.

Enter two different names of the figure and your explanation in the space provided.



Kentucky Summative Assessments

Spring 2024
Grade 4
Mathematics

Item: MA0420093*

Book Question Number: 8

Standard: KY.4.G.2

Item Type: ER Key: Rubric

	Number of	Percent	Average	Item Br	eakout Sta	atistics - S	core Perc	entages
Student Group	Students	Correct		Score 0 (%)	Score 1(%)	Score 2 (%)	Score 3 (%)	Score 4 (%)
All Students	17,131	31.0%	1.24	18%	53%	20%	8%	2%
Gender						•		
Female	8,466	31.2%	1.25	18%	53%	19%	8%	2%
Male	8,665	30.7%	1.23	18%	53%	20%	7%	2%
Ethnicity								
African American	1,702	20.6%	0.82	37%	47%	12%	3%	1%
American Indian or Alaska Native	27	31.5%	1.26	15%	52%	26%	7%	0%
Asian	361	37.5%	1.50	12%	50%	21%	11%	6%
Hispanic or Latino	1,398	26.9%	1.08	23%	54%	17%	5%	2%
Native Hawaiian or Pacific Islander	36	33.3%	1.33	3%	72%	17%	6%	3%
White (non-Hispanic)	12,627	32.7%	1.31	15%	53%	21%	8%	2%
Two or more races	980	29.6%	1.19	20%	53%	18%	7%	2%
Migrant	76	25.0%	1.00	26%	55%	12%	5%	1%
English Learner	1,180	23.2%	0.93	28%	56%	13%	3%	0%
Economically Disadvantaged	10,671	27.3%	1.09	22%	55%	17%	5%	1%
Students with Disabilities	2,406	25.0%	1.00	27%	53%	14%	4%	1%

^{*} Calculator section

Rubric

	Rubric
Score Point 4	Student scores 4 points.
Score Point 3	Student scores 3 or 3.5 points.
Score Point 2	Student scores 2 or 2.5 points.
Score Point 1	Student scores 0.5, 1, or 1.5 points.
	OR Student demonstrates a minimal understanding of classifying a two- dimensional figure based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.
Score Point 0	Student response is completely incorrect or irrelevant.
Score Points	Part A
Correct Answers	Part A Rectangle, because the figure has four sides, two pairs of opposite parallel lines, and four right angles. Part B A parallelogram, because the figure has two pairs of opposite parallel lines. A quadrilateral, because the figure has four sides.

the shape is 90 degrees

Part B

if it is eql to the shape it is 90 degrees

Anchor Annotation, Paper 1 Score Point 0

Part A: Score Point 0

This response receives no credit. It includes none of the four required elements:

No correct classification is provided, and the characteristic is too vague for credit (the shape is 90 degrees). More specificity about the right angles, such as noting all are 90 degrees, is required for credit.

Part B: Score Point 0

This response receives no credit. It includes none of the four required elements:

No correct classifications are provided, and the characteristic is too vague for credit (it is 90 degrees). More specificity about the right angles, such as noting all are 90 degrees, is required for credit.

A2

Part A

There is 36 sq.feet in the sq.

Part B

A sq can be rectangul but rectangul CAN NOT be a sq.

Anchor Annotation, Paper 2 Score Point 0

Part A: Score Point 0

This response receives no credit. It includes none of the four required elements:

No correct classification or characteristics are provided.

Part B: Score Point 0

This response receives no credit. It includes none of the four required elements:

One incorrect classification is provided (sq), and the attempt to address characteristics is irrelevant.

This shape is a square one characteristics is a square has equal sides other characteristics is a square has equal angles the last characteristices is it is shaped like a box.

Part B

Squares have alot in comein when box's. Squars can be small or big or large or huge.

Anchor Annotation, Paper 3 Score Point 0

Part A: Score Point 0

This response receives no credit. It includes none of the four required elements:

The classification is incorrect, and the characteristics are vague and tied to this incorrect classification, so none receive credit. Even if the classification were acceptable, "equal sides" and "equal angles" are not specific enough to read as number of sides or right angles.

Part B: Score Point 0

This response receives no credit. It includes none of the four required elements:

One incorrect classification is provided (square), and the attempt to address characteristics is essentially irrelevant and vague. In addition, even if the characteristics were acceptable, they are tied to an incorrect classification so would not receive credit.

A4

Part A

Its a rectangle because it has all right anglesa

Part B

another one is a square because it has all right angles too. Another one is a trapezode because all the sides are all the same.

Anchor Annotation, Paper 4 Score Point 1

Part A: Score Point 1

This response receives partial credit. It includes two of the four required elements:

- One correct classification is provided (a rectangle).
- A **partial** explanation that includes **one** out of three characteristics is provided (it has all right anglesa). Note that "all" is equivalent to stating "4" with regards to the right angles.

Part B: Score Point 0

This response receives no credit. It includes none of the four required elements:

While it includes a correct characteristic, the first classification is incorrect so neither receives credit (a square because it has all right angles).

The second classification and the characteristic are both incorrect (trapizode because all the sides are all the same). In addition, this characteristic is not true for the figure in the prompt.

This shape is a rectangle because rectangles have 4 sides, 2 parallel sides, and 4 perpendicular sides.

Part B

A rectangle has 2 sets of even sides, and has 4 right angles

Anchor Annotation, Paper 5 Score Point 1

Part A: Score Point 1

This response receives partial credit. It includes two of the four required elements:

- One correct classification is provided (a rectangle).
- A <u>partial</u> explanation that includes <u>one</u> out of three characteristics is provided (4 sides).

Note that no credit is given for the characteristic "parallel" as it states only two, rather than four, sides are parallel. In addition, no credit is given for the characteristic of perpendicular as it is incomplete in describing the right angles that would be formed.

Part B: Score Point 0.5

This response receives partial credit. It includes one of the four required elements:

 While the classification repeats what is given in Part A, a correct characteristic for a rectangle not used in Part A is provided (4 right angles). Contrast with Anchor papers 7, 8 and 9, which include correct but repeated characteristics of a repeated classification. If students repeat a classification but include a new characteristic not previously provided, then they may receive credit for that characteristic.

Per the rubric, a response is a Score Point 1 if it receives 1.5 total points.

a rectangle I know this because it is longer than a square has 4 right angles and has 4 sides so this is how I know it is a rectangle it is also wider than a square.

Part B

square, perpendicular. it has perpendicular lines and at first glance it looks like a square.

Anchor Annotation, Paper 6 Score Point 1

Part A: Score Point 1.5

This response receives partial credit. It includes three of the four required elements:

- One correct classification is provided (a rectangle).
- A <u>partial</u> explanation that includes <u>two</u> out of three characteristics is provided (has 4 right angles and has 4 sides).

Part B: Score Point 0

This response receives no credit. It includes none of the four required elements:

The only additional classification is incorrect, and the characteristic is tied to an incorrect classification so neither receives credit (square . . . it has perpendicular lines). Also note that even if the classification were correct, the student would not receive credit for perpendicular as it lacks specificity regarding the right angles that formed by those lines.

No second classification or characteristic is provided.

Per the rubric, a response is a Score Point 1 if it receives 1.5 total points.

this is a rectangle it is a quadratill it has 4 side 2 are the same 2 are diffirent they all have the same corners

Part B

it has 4 corners it has 4 side it is a rectangle and quadreatill

Anchor Annotation, Paper 7 Score Point 2

Part A: Score Point 1

This response receives partial credit. It includes two of the four required elements:

- One correct classification is provided (a rectangle).
- A **partial** explanation that includes **one** out of three characteristics is provided (it has 4 side).

Note that what follows "4 side" (2 are the same 2 are different) is not considered a new characteristic but, instead, a continuation of the number of sides, which is shown in Anchor paper 13. In addition, the reference to having the same corners is not sufficiently specific to explain that those corners are 4 right angles.

Part B: Score Point 1

This response receives partial credit. It includes two of the four required elements:

• A first correct classification that is different from Part A <u>and</u> one characteristic to explain this additional classification are provided (4 side . . . qauderatill).

Note that this classification repeats one of two classifications from Part A. However, students are only required to provide one classification in Part A so this second classification is not credited in Part A and can be used in Part B.

Contrast with Anchor papers 9 and 8, which do not receive credit for characteristics because they are not clearly aligned with the classification. In Anchor paper 7, however, the characteristic is clearly tied to both classifications by the use "and" so receives credit.

The second classification and that characteristic both repeat what is given in Part A so neither receives credit (4 side . . . a rectangle). If this had been a new and correct characteristic for a rectangle, then it could receive credit.

Quadrilateral, right, because its got the right angle squares, and 4 sides!

Part B

Rectangle, or Quadrilateral right because it's a rectangle, and classified as a quadrilateral right angle.

Anchor Annotation, Paper 8 Score Point 2

Part A: Score Point 1.5

This response receives partial credit. It includes three of the four required elements:

- One correct classification is provided (Quadrilataral).
- A <u>partial</u> explanation that includes <u>two</u> out of three characteristics is provided (its got the right angle squares . . . and 4 sides). Note that the reference to "right angle squares" is sufficient to explain that all four corners are right angles since those "squares" are shown for all angles.

Part B: Score 0.5

This response receives partial credit. It includes one of the four required elements:

A first correct classification that is different from Part A is provided (rectangle).

While a characteristic that could explain this first additional classification is provided, that characteristic is not clearly aligned with the classification. Instead, it appears more clearly tied to the repeated classification, which repeats a characteristic for a rectangle given in Part A. If this had been a new and correct characteristic, it would receive credit.

The second classification and characteristic repeat what is given in Part A so no credit is given (a quadrilateral right angle). In addition, "right angle" is not sufficient on its own since it does not address that all 4 angles are right angles.

One way the figure can be classified is a polygon. 1. 4 sides 2. 4 right angles 3. 2 sets of parallel sides. One name is a quadrilateral.

That's my answers.

Part B

- 1. a square 2. quadrilateral. It can be a square because they both have 2 sets of parallel sides and they both have 4 sides. The figure is also a quadrilateral because being a quadrilateral means you have 4 sides and the figure has 4 sides.
- 1. rectangle 2. polygon

That's is my answers.

Anchor Annotation, Paper 9 Score Point 2

Part A: Score Point 2

This response receives full credit. It includes all of the four required elements:

- One correct classification is provided (a quadrilateral).
- A complete explanation that includes three correct characteristics is provided (4 sides . . . 4 right angles . . . 2 sets of parallel sides).

Part B: Score Point 0.5

This response receives partial credit. It includes one of the four required elements:

• A first correct classification that is different from Part is provided (rectangle).

While an appropriate characteristic for a rectangle is provided (2 sets of parallel sides and they both have 4 sides), it is not aligned with that classification so the two are not clearly connected. Instead, this characteristic is aligned with an incorrect (square) and a repeated (quadrilateral) classification.

According to the rubric a response is a Score Point 2 if it receives 2.5 total points.

rectangle because it has 2 shorts sides and 2 long sides

Part B

quadrilateral because it has 4 sides and a parallelogram because it has 2 sets of lines that will never touch

Anchor Annotation, Paper 10 Score Point 3

Part A: Score Point 1

This response receives partial credit. It includes two of the four required elements:

- One correct classification is provided (a rectangle).
- A <u>partial</u> explanation that includes <u>one</u> out of three characteristics is provided (it has 2 shorts sides and 2 long sides). As noted in Anchor paper 13, the description of the lengths of the sides is not what receives credit. Instead, it is providing a characteristic that is equivalent to "4 sides" that receives credit.

Part B: Score Point 2

This response receives full credit. It includes all of the four required elements:

- A first correct classification that is different from Part A <u>and</u> one characteristic to explain this first additional classification are provided (quadrlateral because it has 4 sides).
- A second correct classification that is different from Part A <u>and</u> one characteristic to explain this second additional classification are provided (a parallalgram because it has 2 sets of lines that never touch). Note that this characteristic is equivalent to "2 pairs of parallel sides".

The shape above can be called a rectangle. It's a rectangle because it has 4 parallel sides, 4 right angles, and there are 2 pairs of equal sides.

Part B

The shape at the top of this question can also be called a square because it has 4 right angles. The shape at the top of this question can also be called a parallelogram because it has 2 sets of parallel sides.

Anchor Annotation, Paper 11 Score Point 3

Part A: Score Point 2

This response receives full credit. It includes all of the four required elements:

- One correct classification is provided (a rectangle).
- A complete explanation that includes three correct characteristics is provided (it has 4 parallel sides, 4 right angles, and there are 2 pairs of . . . sides). Note that the word "equal" for the 2 pairs of sides is incorrect; however, it is considered extraneous. Instead, this characteristic receives credit for providing the equivalent for "4 sides", which is shown in Anchor paper 13.

Part B: Score Point 1

This response receives partial credit. It includes two of the four required elements:

• A first correct classification that is different from Part A <u>and</u> one characteristic to explain this first additional classification are provided (a parallelagram because it has 2 sets of parallel sides).

While it includes a correct characteristic, it is tied to a second classification that is incorrect so neither receives credit (a square because it has 4 right angles). Note that a square is classified as a rectangle, but a rectangle is not a square.

It could be classified as a rectangle. 1 characteristic is that it has 4 right angles. Another characteristic is that it has only 2 pairs of parallel sides. The last characteristic is that it only has 2 lines of semmitry.

Part B

It could be classified as a parallelogram. This is because it has 2 pairs of parallel sides. It could be classified as a square because it has 4 right angles.

Anchor Annotation, Paper 12 Score Point 3

Part A: Score Point 2

This response receives full credit. It includes all of the four required elements:

- One correct classification is provided (a rectangle).
- A complete explanation that includes three correct characteristics is provided (it has 4 right angles . . . 2 parirs of parall sides . . . 2 lines of semmitry).

Part B: Score Point 1

This response receives partial credit. It includes two of the four required elements:

• A first correct classification that is different from Part A <u>and</u> one characteristic to explain this first additional classification are provided (a parallelagram . . . because it has 2 pairs of parall sides).

While it includes a correct characteristic, the second classification is incorrect so neither receives credit (a square because it has 4 right angles). Note that a square is classified as a rectangle, but a rectangle is not a square.

One way the figure can be classified is that it's a rectangle. One characteristic is that two sides are longer than the other two sides. Another characteristic is that it has 4 right angles. And my last characteristic is has 2 pairs of parallel lines.

Part B

Another way this shape can be classified is a quadrilateral. A reason why is that it has four sides. And the last way it can be classified is a parallelogram. A reason why is because it has two pairs of parallel sides.

Anchor Annotation, Paper 13 Score Point 4

Part A: Score Point 2

This response receives full credit. It includes all of the four required elements:

- One correct classification is provided (it's a rectangle).
- A complete explanation that includes three correct characteristics is provided (two sides are longer than the other two sides [equivalent to "4 sides"] . . . it has 4 right angles . . . 2 pairs of parralell lines).

Note that the statement about the lengths of the sides is not what receives credit, but, instead, this statement receives credit for identifying the total number of sides. That is, 2 sides plus 2 sides equals 4 sides.

Part B: Score Point 2

This response receives full credit. It includes all of the four required elements:

- A first correct classification that is different from Part A <u>and</u> one characteristic to explain this first additional classification are provided (a quadrilateral . . . it has four sides).
- A second correct classification that is different from Part A <u>and</u> one characteristic to explain this second additional classification are provided (a parralellogram . . . it has two pairs of parralell sides).

The figure is a rectangle. It has 4 sides, 4 right angles, and 2 pairs of parallel sides.

Part B

The figure is also a quadrilateral and a parallelogram. It is a quadrilateral because it has 4 sides. It is a parallelogram because it has 2 pairs of parallel sides.

Anchor Annotation, Paper 14 Score Point 4

Part A: Score Point 2

This response receives full credit. It includes all of the four required elements:

- One correct classification is provided (The figure is a rectangle).
- A complete explanation that includes three correct characteristics is provided (it has 4 sides, 4 right angles, and 2 pairs of parallel sides).

Part B: Score Point 2

This response receives full credit. It includes all of the four required elements:

- A first correct classification that is different from Part A <u>and</u> one characteristic to explain this first additional classification are provided (it is a quadrilateral because it has 4 sides).
- A second correct classification that is different from Part A <u>and</u> one characteristic to explain this second additional classification are provided (It is a paralellogram because it has 2 pairs of paralell sides).

The figure is a rectangle. It has 4 sides, 4 right angles, and 2 pairs of parallel sides.

Part B

Two other ways a rectangle can be classified, is a quadrilateral, and a parrallelogram. It's a quadrilateral, because it has 4 sides, and it's a parrallelogram, becasue it has two pairs of parallel lines.

Anchor Annotation, Paper 15 Score Point 4

Part A: Score Point 2

This response receives full credit. It includes all of the four required elements:

- One correct classification is provided (The figure is a rectangle).
- Three correct characteristics are used to explain the answer (it has 4 right angles . . . 4 sides . . . 2 pairs of parrallel lines).

Part B: Score Point 2

This response receives full credit. It includes all of the four required elements:

- A first correct classification that is different from Part A <u>and</u> one characteristic to explain this first additional classification are provided (It's a quadrilateral, because it has 4 sides).
- A second correct classification that is different from Part A <u>and</u> one characteristic to explain this second additional classification are provided (it's a parrallelogram, because it has two pairs of parrallel lines).

Note that Part B may receive credit for characteristics used in Part A when those characteristics in Part B are associated with classifications not used in Part A. Conversely, students may receive credit in Part B for a characteristic for a repeated classification if that characteristic is not used in Part A.



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