

Kentucky Summative Assessments



Grade 8 Mathematics Released Items 2026



1

MA0820003_1

Which number is between 2.2 and 2.3?

A $\sqrt{5}$

B $\sqrt{6}$

C $\sqrt{7}$

D $\sqrt{8}$



Released Item Performance

Kentucky Summative Assessments

Spring 2026

Grade 8

Mathematics

Item: MA0820003

Book Question Number: 1

Standard: KY.8.NS.2

Item Type: MC

Key: A

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	20,826	65%	0.65	65%	23%	9%	3%
Gender							
Female	9,853	66%	0.66	66%	23%	8%	3%
Male	10,972	65%	0.65	65%	22%	10%	3%
Ethnicity							
African American	2,303	63%	0.63	63%	25%	8%	4%
American Indian or Alaska Native	19	63%	0.63	63%	21%	11%	5%
Asian	469	73%	0.73	73%	18%	6%	3%
Hispanic or Latino	2,336	60%	0.60	60%	27%	9%	4%
Native Hawaiian or Pacific Islander	51	69%	0.69	69%	16%	12%	4%
White (non-Hispanic)	14,495	66%	0.66	66%	22%	9%	3%
Two or more races	1,150	65%	0.65	65%	23%	9%	4%
Migrant							
Migrant	122	59%	0.59	59%	29%	7%	6%
English Learner							
English Learner	1,775	59%	0.59	59%	27%	10%	5%
Economically Disadvantaged							
Economically Disadvantaged	12,441	63%	0.63	63%	24%	9%	3%
Students with Disabilities							
Students with Disabilities	3,870	65%	0.65	65%	23%	9%	4%



2

MA0821032_RE

Complete the statement comparing the value of 3×10^{-6} to the value of 9×10^{-2} .

Select from the drop-down menus to correctly complete the statement.

The value of 3×10^{-6} is times the value of 9×10^{-2} .

RESPONSE_A1	RESPONSE_A2
3,000	larger than
6,000	
30,000	
60,000	smaller than
300,000,000	
600,000,000	

CORRECT ANSWER

RESPONSE_A1 = 30,000

RESPONSE_A2 = smaller than



Released Item Performance

Kentucky Summative Assessments

Spring 2026

Grade 8

Mathematics

Item: MA0821032

Book Question Number: 2

Standard: KY.8.EE.3

Item Type: TE

Key: see below

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Score Percentages	
				Score 0 (%)	Score 1 (%)
All Students	23,029	25.4%	0.25	75%	25%
Gender					
Female	11,219	25.4%	0.25	75%	25%
Male	11,808	25.5%	0.25	75%	25%
Ethnicity					
African American	2,226	21.2%	0.21	79%	21%
American Indian or Alaska Native	33	12.1%	0.12	88%	12%
Asian	593	42.2%	0.42	58%	42%
Hispanic or Latino	2,159	21.1%	0.21	79%	21%
Native Hawaiian or Pacific Islander	40	27.5%	0.28	73%	28%
White (non-Hispanic)	16,753	26.1%	0.26	74%	26%
Two or more races	1,222	23.6%	0.24	76%	24%
Migrant					
Migrant	93	14.0%	0.14	86%	14%
English Learner					
English Learner	1,004	16.2%	0.16	84%	16%
Economically Disadvantaged					
Economically Disadvantaged	13,080	22.0%	0.22	78%	22%
Students with Disabilities					
Students with Disabilities	1,560	18.4%	0.18	82%	18%

Key: Drop Down 1 should have 30,000, Drop Down 2 should have smaller than

**3**

MA0820000_1

Which number is irrational?

A $\sqrt{\frac{1}{8}}$

B $\sqrt{\frac{1}{4}}$

C $\sqrt{\frac{4}{9}}$

D $\sqrt{\frac{16}{25}}$



Released Item Performance

Kentucky Summative Assessments

Spring 2026
Grade 8
Mathematics

Item: MA0820000*

Book Question Number: 3

Standard: KY.8.NS.1

Item Type: MC

Key: A

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	20,818	28%	0.28	28%	10%	39%	23%
Gender							
Female	9,852	29%	0.29	29%	9%	39%	23%
Male	10,965	27%	0.27	27%	11%	39%	23%
Ethnicity							
African American	2,300	22%	0.22	22%	16%	34%	27%
American Indian or Alaska Native	19	37%	0.37	37%	5%	37%	21%
Asian	468	46%	0.46	46%	7%	33%	13%
Hispanic or Latino	2,335	24%	0.24	24%	13%	38%	25%
Native Hawaiian or Pacific Islander	51	35%	0.35	35%	14%	33%	18%
White (non-Hispanic)	14,494	30%	0.30	30%	8%	40%	22%
Two or more races	1,148	25%	0.25	25%	10%	40%	26%
Migrant							
Migrant	121	26%	0.26	26%	15%	27%	32%
English Learner							
English Learner	1,773	22%	0.22	22%	17%	32%	29%
Economically Disadvantaged							
Economically Disadvantaged	12,436	25%	0.25	25%	12%	38%	26%
Students with Disabilities							
Students with Disabilities	3,868	26%	0.26	26%	19%	28%	27%

* Calculator section



4

MA0819002_4

Chris hiked for three hours. The table shows his progress by the hour.

Hike Progress

Time (hours)	0	1	2	3
Height (feet above sea level)	400	700	1,000	1,300

Which equation represents the height, h , in feet above sea level, with respect to the time, t , in hours, that Chris spent hiking?

- A** $h = 400t$
- B** $h = 300t$
- C** $h = 400t + 300$
- D** $h = 300t + 400$



Released Item Performance

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Spring 2026
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Mathematics

Item: MA0819002*

Book Question Number: 4

Standard: KY.8.F.4.b

Item Type: MC

Key: D

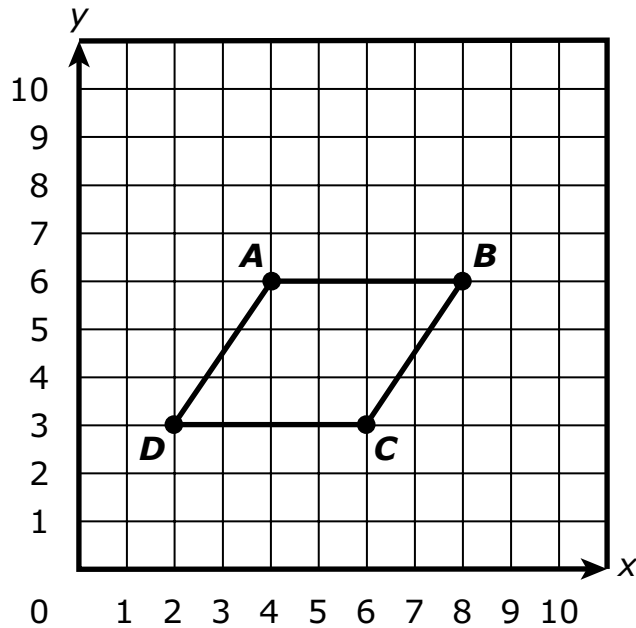
Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	34,511	34%	0.34	17%	22%	28%	34%
Gender							
Female	16,787	32%	0.32	19%	21%	29%	32%
Male	17,721	36%	0.36	14%	23%	27%	36%
Ethnicity							
African American	3,378	22%	0.22	18%	23%	37%	22%
American Indian or Alaska Native	46	33%	0.33	22%	26%	20%	33%
Asian	840	59%	0.59	11%	14%	16%	59%
Hispanic or Latino	3,211	29%	0.29	18%	22%	32%	29%
Native Hawaiian or Pacific Islander	66	36%	0.36	14%	9%	41%	36%
White (non-Hispanic)	25,083	36%	0.36	16%	22%	26%	36%
Two or more races	1,882	30%	0.30	17%	23%	30%	30%
Migrant							
Migrant	143	22%	0.22	18%	20%	40%	22%
English Learner							
English Learner	1,524	17%	0.17	18%	24%	42%	17%
Economically Disadvantaged							
Economically Disadvantaged	19,512	27%	0.27	18%	24%	32%	27%
Students with Disabilities							
Students with Disabilities	2,404	24%	0.24	17%	23%	36%	24%

* Calculator section

**5**

MA0820054_4

Parallelogram $ABCD$ is graphed on a coordinate plane as shown.



The parallelogram $ABCD$ is rotated 180 degrees clockwise to produce parallelogram $A'B'C'D'$. Which statement is true about the two parallelograms?

- A** $\angle C \cong \angle D'$
- B** $\angle B \cong \angle A'$
- C** $\overline{DC} \parallel \overline{D'A'}$
- D** $\overline{DC} \parallel \overline{A'B'}$



Released Item Performance

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Grade 8

Mathematics

Item: MA0820054*

Book Question Number: 5

Standard: KY.8.G.1

Item Type: MC

Key: D

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	23,022	53%	0.53	11%	15%	21%	53%
Gender							
Female	11,216	53%	0.53	11%	15%	21%	53%
Male	11,804	53%	0.53	11%	16%	20%	53%
Ethnicity							
African American	2,225	43%	0.43	12%	19%	25%	43%
American Indian or Alaska Native	33	42%	0.42	12%	21%	24%	42%
Asian	593	73%	0.73	6%	9%	13%	73%
Hispanic or Latino	2,156	49%	0.49	12%	16%	23%	49%
Native Hawaiian or Pacific Islander	40	40%	0.40	13%	18%	30%	40%
White (non-Hispanic)	16,751	54%	0.54	11%	15%	20%	54%
Two or more races	1,221	53%	0.53	11%	17%	18%	53%
Migrant							
Migrant	93	43%	0.43	15%	23%	19%	43%
English Learner							
English Learner	1,003	42%	0.42	12%	19%	27%	42%
Economically Disadvantaged							
Economically Disadvantaged	13,074	48%	0.48	12%	17%	23%	48%
Students with Disabilities							
Students with Disabilities	1,560	41%	0.41	14%	19%	27%	41%

* Calculator section



6

MA0820056_1

Triangle $P'Q'R'$ is the image of triangle PQR after being reflected across the y -axis and translated down 2 units on a coordinate plane. Which rule can be used to find the coordinates of triangle $P'Q'R'$ from the coordinates of triangle PQR ?

A $(-x, y - 2)$

B $(-x - 2, y)$

C $(x, -y - 2)$

D $(x - 2, -y)$



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Spring 2026
Grade 8
Mathematics

Item: MA0820056*

Book Question Number: 6

Standard: KY.8.G.3

Item Type: MC

Key: A

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	20,710	40%	0.40	40%	23%	27%	10%
Gender							
Female	9,818	40%	0.40	40%	22%	27%	11%
Male	10,892	40%	0.40	40%	23%	27%	9%
Ethnicity							
African American	2,253	30%	0.30	30%	30%	29%	11%
American Indian or Alaska Native	23	26%	0.26	26%	26%	30%	17%
Asian	515	57%	0.57	57%	15%	20%	8%
Hispanic or Latino	2,351	34%	0.34	34%	28%	27%	11%
Native Hawaiian or Pacific Islander	41	32%	0.32	32%	29%	27%	12%
White (non-Hispanic)	14,403	42%	0.42	42%	21%	27%	10%
Two or more races	1,123	39%	0.39	39%	24%	28%	9%
Migrant							
Migrant	119	30%	0.30	30%	32%	26%	12%
English Learner							
English Learner	1,750	28%	0.28	28%	33%	28%	12%
Economically Disadvantaged							
Economically Disadvantaged	12,449	36%	0.36	36%	26%	28%	11%
Students with Disabilities							
Students with Disabilities	3,752	28%	0.28	28%	33%	29%	11%

* Calculator section

**7**

MA0820077_4

A student surveyed a group of people about the number of children and the number of pets living in each household. The results are shown in the table.

Survey Results

Number of Children (x)	2	1	4	1	1	2	0	1	1	2	2	1	5	0
Number of Pets (y)	2	0	1	0	1	0	4	3	2	0	1	4	1	1

Which statement best describes the pattern of association between the two quantities?

- A** There is a positive, linear association.
- B** There is a negative, linear association.
- C** There is a positive, nonlinear association.
- D** There is a negative, nonlinear association.



Released Item Performance

Kentucky Summative Assessments

Spring 2026
Grade 8
Mathematics

Item: MA0820077*

Book Question Number: 7

Standard: KY.8.SP.1

Item Type: MC

Key: D

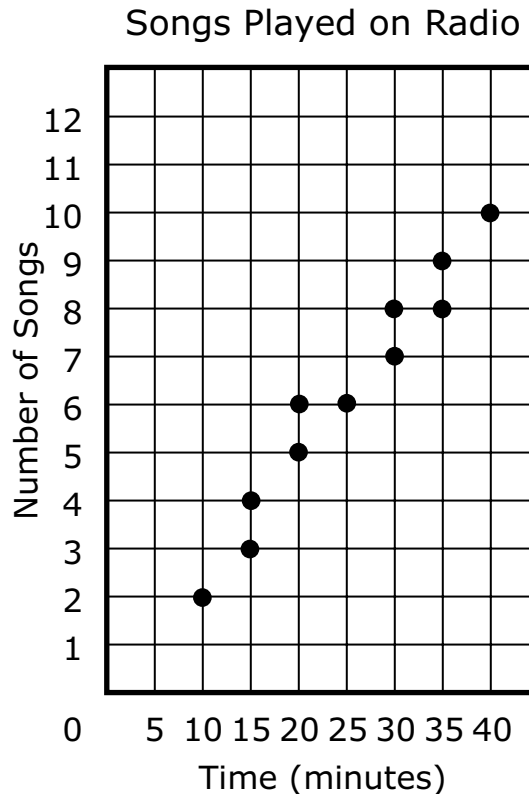
Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	23,125	31%	0.31	15%	12%	42%	31%
Gender							
Female	11,252	32%	0.32	14%	12%	42%	32%
Male	11,870	30%	0.30	15%	13%	41%	30%
Ethnicity							
African American	2,271	22%	0.22	19%	17%	42%	22%
American Indian or Alaska Native	29	48%	0.48	10%	10%	31%	48%
Asian	546	47%	0.47	6%	10%	37%	47%
Hispanic or Latino	2,140	29%	0.29	17%	13%	41%	29%
Native Hawaiian or Pacific Islander	50	30%	0.30	14%	12%	44%	30%
White (non-Hispanic)	16,837	32%	0.32	14%	12%	42%	32%
Two or more races	1,247	30%	0.30	16%	14%	40%	30%
Migrant							
Migrant	95	17%	0.17	20%	23%	40%	17%
English Learner							
English Learner	1,025	20%	0.20	21%	17%	41%	20%
Economically Disadvantaged							
Economically Disadvantaged	13,057	27%	0.27	17%	14%	41%	27%
Students with Disabilities							
Students with Disabilities	1,674	22%	0.22	21%	18%	39%	22%

* Calculator section



MA0820083_1

Lainie asked her friends to record how many minutes they listened to the radio and the number of songs they heard during that time. The points shown on the coordinate plane represent the data Lainie collected.



Lainie determined the line of best fit to be $y = 0.25x - 0.13$, where x represents time, in minutes, and y represents the number of songs. In terms of the situation, what does the value of 0.25 represent?

- A** On average, a person hears 0.25 of a song for each minute of listening to the radio.
- B** On average, a person hears 0.25 of a song in the first minute of listening to the radio.
- C** On average, a person spends 0.25 of a minute waiting for a song to start playing on the radio.
- D** On average, a person spends 0.25 of a minute listening to the radio for each additional song played.



Released Item Performance

Kentucky Summative Assessments

Spring 2026
Grade 8
Mathematics

Item: MA0820083*

Book Question Number: 8

Standard: KY.8.SP.3

Item Type: MC

Key: A

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	23,129	34%	0.34	34%	21%	24%	20%
Gender							
Female	11,250	32%	0.32	32%	21%	25%	22%
Male	11,876	37%	0.37	37%	22%	22%	19%
Ethnicity							
African American	2,273	25%	0.25	25%	25%	27%	23%
American Indian or Alaska Native	29	41%	0.41	41%	17%	17%	24%
Asian	546	46%	0.46	46%	16%	16%	22%
Hispanic or Latino	2,142	30%	0.30	30%	24%	26%	21%
Native Hawaiian or Pacific Islander	50	24%	0.24	24%	18%	24%	34%
White (non-Hispanic)	16,838	36%	0.36	36%	21%	23%	20%
Two or more races	1,246	30%	0.30	30%	23%	25%	22%
Migrant							
Migrant	95	29%	0.29	29%	28%	24%	18%
English Learner							
English Learner	1,026	23%	0.23	23%	27%	29%	22%
Economically Disadvantaged							
Economically Disadvantaged	13,060	29%	0.29	29%	23%	26%	21%
Students with Disabilities							
Students with Disabilities	1,677	27%	0.27	27%	27%	25%	21%

* Calculator section



Investing in Kentucky's Future, One Student at a Time