

Kentucky Summative Assessments



Grade 6 Mathematics Released Items 2023



1

MA0620040_4

What is the value of $\frac{16}{4}$ less than the sum of 11 and 3^2 ?

- A** 5
- B** 8
- C** 13
- D** 16



Released Item Performance

Kentucky Summative Assessments

Spring 2023

Grade 6

Mathematics

Item: MA0620040

Book Question Number: 1

Standard: KY.6.EE.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	46,218	37%	0.37	18%	26%	19%	37%
Gender							
Female	22,491	37%	0.37	18%	26%	19%	37%
Male	23,727	38%	0.38	18%	26%	18%	38%
Ethnicity							
African American	5,011	24%	0.24	21%	32%	23%	24%
American Indian or Alaska Native	55	31%	0.31	18%	22%	29%	31%
Asian	921	54%	0.54	15%	20%	11%	54%
Hispanic or Latino	4,094	29%	0.29	19%	29%	22%	29%
Native Hawaiian or Pacific Islander	93	27%	0.27	12%	34%	27%	27%
White (non-Hispanic)	33,680	40%	0.40	18%	24%	18%	40%
Two or more races	2,364	35%	0.35	19%	26%	20%	35%
Migrant							
Migrant	215	26%	0.26	23%	27%	24%	26%
English Learner							
English Learner	2,153	21%	0.21	22%	31%	26%	21%
Economically Disadvantaged							
Economically Disadvantaged	27,941	31%	0.31	20%	28%	21%	31%
Students with Disabilities							
Students with Disabilities	6,277	29%	0.29	20%	26%	26%	29%



2

MA0620139_2

Students at a middle school have \$100 to spend on candy for a fundraiser. Each piece of candy costs 32 cents. The students use the inequality shown to figure out how many pieces of candy they can buy.

$$100 \geq 0.32x$$

Which statement **best** describes the number of pieces of candy the students can buy?

- A** They can buy exactly 313 pieces because 100 divided by 0.32 is 312.5, which rounds to 313.
- B** They can buy 312 or fewer pieces since they do not have to spend the entire \$100.
- C** They can buy 313 or fewer pieces since they do not have to spend the entire \$100.
- D** They can buy exactly 312.5 pieces because 100 divided by 0.32 is 312.5.



Released Item Performance

Kentucky Summative Assessments

Spring 2023

Grade 6

Mathematics

Item: MA0620139*

Book Question Number: 2

Standard: KY.6.EE.5

Item Type: MC

Key: B

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	46,222	33%	0.33	26%	33%	13%	29%
Gender							
Female	22,496	33%	0.33	26%	33%	13%	27%
Male	23,726	33%	0.33	25%	33%	12%	30%
Ethnicity							
African American	5,011	29%	0.29	32%	29%	15%	24%
American Indian or Alaska Native	55	36%	0.36	29%	36%	11%	24%
Asian	920	41%	0.41	18%	41%	9%	33%
Hispanic or Latino	4,095	30%	0.30	30%	30%	13%	28%
Native Hawaiian or Pacific Islander	92	34%	0.34	34%	34%	9%	24%
White (non-Hispanic)	33,682	34%	0.34	25%	34%	12%	29%
Two or more races	2,367	33%	0.33	26%	33%	14%	27%
Migrant							
Migrant	214	30%	0.30	26%	30%	11%	33%
English Learner							
English Learner	2,154	28%	0.28	34%	28%	13%	24%
Economically Disadvantaged							
Economically Disadvantaged	27,944	29%	0.29	29%	29%	13%	28%
Students with Disabilities							
Students with Disabilities	6,279	28%	0.28	31%	28%	14%	27%

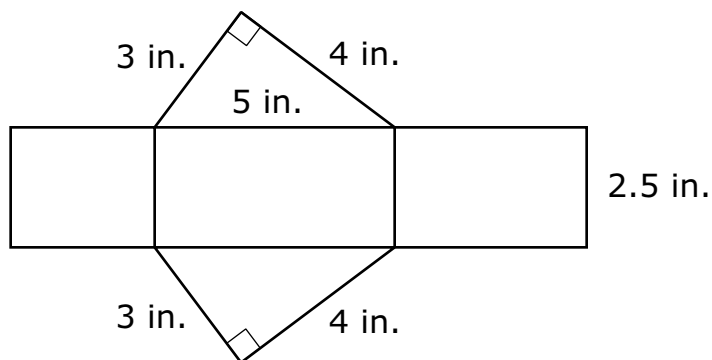
* Calculator section



3

MA0620163_1

The net of a three-dimensional figure is shown.



Which three-dimensional figure is this the net of?

- A** triangular prism
- B** rectangular prism
- C** triangular pyramid
- D** rectangular pyramid



Released Item Performance

Kentucky Summative Assessments

Spring 2023
Grade 6
Mathematics

Item: MA0620163

Book Question Number: 3

Standard: KY.6.G.4

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	33,165	40%	0.40	40%	21%	19%	20%
Gender							
Female	15,995	39%	0.39	39%	20%	21%	20%
Male	17,170	42%	0.42	42%	21%	17%	20%
Ethnicity							
African American	3,611	31%	0.31	31%	27%	24%	19%
American Indian or Alaska Native	41	54%	0.54	54%	20%	10%	17%
Asian	639	53%	0.53	53%	14%	16%	18%
Hispanic or Latino	2,973	36%	0.36	36%	21%	24%	19%
Native Hawaiian or Pacific Islander	64	42%	0.42	42%	14%	28%	16%
White (non-Hispanic)	24,123	42%	0.42	42%	20%	18%	20%
Two or more races	1,714	39%	0.39	39%	23%	19%	19%
Migrant							
Migrant	162	31%	0.31	31%	30%	24%	15%
English Learner							
English Learner	1,682	28%	0.28	28%	27%	28%	17%
Economically Disadvantaged							
Economically Disadvantaged	20,189	36%	0.36	36%	23%	21%	20%
Students with Disabilities							
Students with Disabilities	5,084	33%	0.33	33%	25%	23%	20%



4

MA0620009_1

Steven charges the same price, in dollars, for each hour of tutoring. If Steven charges \$34 for 4 hours, how much would the charge be for 10 hours of tutoring?

- A** \$85
- B** \$125
- C** \$204
- D** \$300



Released Item Performance

Kentucky Summative Assessments

Spring 2023

Grade 6

Mathematics

Item: MA0620009*

Book Question Number: 4

Standard: KY.6.RP.3.b

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	28,897	60%	0.60	60%	16%	13%	10%
Gender							
Female	14,033	58%	0.58	58%	17%	14%	11%
Male	14,864	62%	0.62	62%	16%	12%	9%
Ethnicity							
African American	3,214	41%	0.41	41%	24%	20%	15%
American Indian or Alaska Native	32	63%	0.63	63%	22%	9%	6%
Asian	583	79%	0.79	79%	8%	8%	5%
Hispanic or Latino	2,640	51%	0.51	51%	20%	15%	13%
Native Hawaiian or Pacific Islander	68	49%	0.49	49%	24%	18%	10%
White (non-Hispanic)	20,910	64%	0.64	64%	15%	12%	9%
Two or more races	1,450	56%	0.56	56%	18%	15%	11%
Migrant							
Migrant	138	38%	0.38	38%	25%	19%	18%
English Learner							
English Learner	1,539	36%	0.36	36%	27%	21%	16%
Economically Disadvantaged							
Economically Disadvantaged	17,624	53%	0.53	53%	19%	15%	12%
Students with Disabilities							
Students with Disabilities	4,684	43%	0.43	43%	24%	17%	16%

* Calculator section



5

MA0620091_1,2

Marcus writes a statistical question to use to survey the students at his school. Which statistical questions could Marcus use for his survey?

Select **two** correct answers.

- A** How many pets live with you and your family?
- B** What is the age of the oldest pet that you own?
- C** How many classrooms in the school have a class pet?
- D** How many students in the school have a bird as a pet?
- E** What is the total number of students in the school who own a pet?



Released Item Performance

Kentucky Summative Assessments

Spring 2023
Grade 6
Mathematics

Item: MA0620091*

Book Question Number: 5

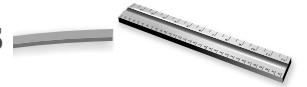
Standard: KY.6.SP.1

Item Type: MS

Key: A,B

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Score Percentages		
				Score 0 (%)	Score 1 (%)	Score 2 (%)
All Students	17,261	42.9%	0.86	38%	37%	24%
Gender						
Female	8,431	42.8%	0.86	40%	35%	25%
Male	8,830	43.0%	0.86	37%	39%	23%
Ethnicity						
African American	1,781	39.0%	0.78	38%	46%	16%
American Indian or Alaska Native	23	52.2%	1.04	26%	43%	30%
Asian	336	40.6%	0.81	46%	27%	27%
Hispanic or Latino	1,447	40.3%	0.81	39%	41%	20%
Native Hawaiian or Pacific Islander	23	52.2%	1.04	26%	43%	30%
White (non-Hispanic)	12,738	43.8%	0.88	38%	35%	26%
Two or more races	913	42.8%	0.86	37%	41%	22%
Migrant						
Migrant	75	40.0%	0.80	36%	48%	16%
English Learner						
English Learner	602	34.8%	0.70	40%	51%	9%
Economically Disadvantaged						
Economically Disadvantaged	10,275	41.3%	0.83	38%	41%	21%
Students with Disabilities						
Students with Disabilities	1,586	40.4%	0.81	35%	49%	16%

* Calculator section

**6**

MA0620117_6

Consider the equation shown.

$$\square(7 + 3) = 42 + 18$$

What number can go in the box to make the equation true?

Enter your answer in the box.



Released Item Performance

Kentucky Summative Assessments

Spring 2023
Grade 6
Mathematics

Item: MA0620117*

Book Question Number: 6

Standard: KY.6.NS.4

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	30,341	49.0%	0.49	51%	49%
Gender					
Female	14,943	48.6%	0.49	51%	49%
Male	15,398	49.4%	0.49	51%	49%
Ethnicity					
African American	3,187	30.2%	0.30	70%	30%
American Indian or Alaska Native	37	43.2%	0.43	57%	43%
Asian	618	68.4%	0.68	32%	68%
Hispanic or Latino	2,569	41.2%	0.41	59%	41%
Native Hawaiian or Pacific Islander	54	42.6%	0.43	57%	43%
White (non-Hispanic)	22,309	52.4%	0.52	48%	52%
Two or more races	1,567	45.2%	0.45	55%	45%
Migrant					
Migrant	128	32.0%	0.32	68%	32%
English Learner					
English Learner	1,079	23.7%	0.24	76%	24%
Economically Disadvantaged					
Economically Disadvantaged	18,044	40.7%	0.41	59%	41%
Students with Disabilities					
Students with Disabilities	2,785	31.5%	0.32	68%	32%

Key: In Blank 1, the numeric response must be equal in value to 6. Leading/trailing zeroes and unnecessary decimal points are ignored. Commas, if used, must be correctly placed. Answers using / to represent a fraction are not considered correct.

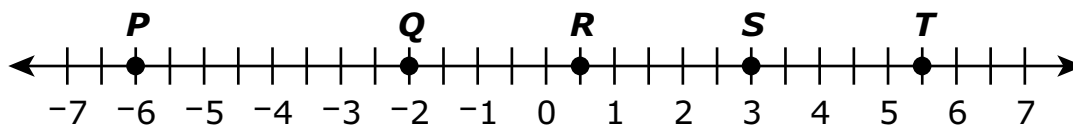
* Calculator section



7

MA0620119_3

Five points are shown on the number line.



Which statement is true?

- A** The opposite of -1.5 is located at point *R*.
- B** The opposite of -6 is located at point *T*.
- C** The opposite of 2 is located at point *Q*.
- D** The opposite of 3 is located at point *S*.



Released Item Performance

Kentucky Summative Assessments

Spring 2023

Grade 6

Mathematics

Item: MA0620119*

Book Question Number: 7

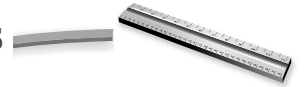
Standard: KY.6.NS.6.a

Item Type: MC

Key: C

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	46,148	70%	0.70	11%	11%	70%	8%
Gender							
Female	22,454	70%	0.70	11%	11%	70%	8%
Male	23,694	70%	0.70	11%	11%	70%	8%
Ethnicity							
African American	4,995	53%	0.53	17%	19%	53%	11%
American Indian or Alaska Native	55	65%	0.65	15%	9%	65%	11%
Asian	919	79%	0.79	7%	5%	79%	9%
Hispanic or Latino	4,077	61%	0.61	12%	15%	61%	12%
Native Hawaiian or Pacific Islander	92	64%	0.64	15%	10%	64%	11%
White (non-Hispanic)	33,647	73%	0.73	10%	9%	73%	7%
Two or more races	2,363	67%	0.67	12%	12%	67%	9%
Migrant							
Migrant	213	50%	0.50	14%	18%	50%	18%
English Learner							
English Learner	2,145	43%	0.43	16%	22%	43%	20%
Economically Disadvantaged							
Economically Disadvantaged	27,894	64%	0.64	13%	13%	64%	10%
Students with Disabilities							
Students with Disabilities	6,275	49%	0.49	18%	18%	49%	15%

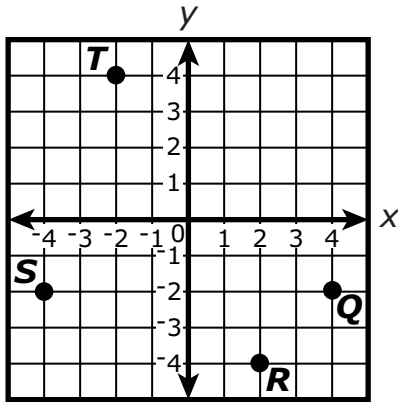
* Calculator section



8

MA0620026_4

Points Q , R , S , and T are plotted on a coordinate plane as shown.



Which point represents the ordered pair $(-2, 4)$?

- A** point Q
- B** point R
- C** point S
- D** point T



Released Item Performance

Kentucky Summative Assessments

Spring 2023

Grade 6

Mathematics

Item: MA0620026*

Book Question Number: 8

Standard: KY.6.NS.6.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	46,181	69%	0.69	16%	7%	8%	69%
Gender							
Female	22,475	71%	0.71	15%	6%	7%	71%
Male	23,706	67%	0.67	17%	8%	8%	67%
Ethnicity							
African American	5,003	49%	0.49	22%	15%	14%	49%
American Indian or Alaska Native	55	69%	0.69	7%	13%	11%	69%
Asian	919	81%	0.81	11%	5%	3%	81%
Hispanic or Latino	4,086	64%	0.64	17%	9%	9%	64%
Native Hawaiian or Pacific Islander	92	70%	0.70	14%	11%	5%	70%
White (non-Hispanic)	33,663	73%	0.73	15%	6%	7%	73%
Two or more races	2,363	67%	0.67	17%	7%	9%	67%
Migrant							
Migrant	214	61%	0.61	18%	8%	13%	61%
English Learner							
English Learner	2,148	49%	0.49	22%	14%	14%	49%
Economically Disadvantaged							
Economically Disadvantaged	27,912	64%	0.64	18%	9%	9%	64%
Students with Disabilities							
Students with Disabilities	6,277	50%	0.50	21%	14%	14%	50%

* Calculator section



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