### **Kentucky Summative Assessments**



# Grade 7 Mathematics Released Items 2022



### MA0720038\_1

1

Which expression is equivalent to

the sum of (8x + 7) and

$$\frac{3}{4}(-2\frac{2}{3}x-8)?$$

- **A**  $^{-}10x 13$
- **B** -10x 1
- **C** -6x 1
- **D**  $^{-}6x 13$

### MA0720144\_2

2

A local company records the amount, in inches, by which the water level changes in a river compared to the previous day. The results are given in the table.

### Water Level Changes

Day	Water Level Change (inches)		
1	$4\frac{1}{2}$		
2	-3		
3	$\frac{7}{8}$		
4	$1\frac{3}{4}$		
5	$-2\frac{3}{10}$		

At the end of Day 5, the water level was at 34.5 inches. What was the water level, in inches, the day before the company started collecting data?

- **A** 22.075
- **B** 32.675
- **C** 36.325
- **D** 46.925









## Mathematics

### MA0720000\_3

4

Aaron jogged at a constant rate for  $10\frac{1}{2}$  minutes. The total distance he jogged was  $\frac{3}{4}$  mile. What was the unit rate, in minutes per mile, at which Aaron jogged?



**D** 15

### MA0720168\_4

5

Kareem wants to be elected the class president of the seventh grade. He predicts his chances of winning by surveying a sample of students who plan on voting. Which survey sample will provide Kareem with the **best** information about the percent of people who would vote for him?

- A Asking everyone on his soccer team who they are voting for
- **B** Asking every fourth girl waiting in the lunch line who they are voting for
- **C** Asking the first 15 students to arrive at school one morning who they are voting for
- Asking 5 randomly selected students in every seventh grade classroom during third period who they are voting for





### MA0720087\_3,5

6

The manager of a pizza restaurant randomly surveyed 200 customers each week for four weeks. He asked each customer, "What is your favorite pizza topping?" The results of the survey are shown in the table.

Week	Cheese	Mushroom	Pepperoni	Sausage
1	50	17	102	31
2	51	18	99	32
3	53	15	96	36
4	46	19	95	40

#### **Favorite Topping Survey**

Which conclusions can be supported by the information shown in the table?

Select **two** correct answers.

- **A** There were more customers during Week 1 than any other week.
- **B** More than 15% of customers who eat at the restaurant will prefer mushrooms as a topping.
- **C** Approximately 25% of customers who eat at the restaurant will prefer cheese as a topping.
- **D** Approximately 30% of customers who eat at the restaurant will prefer sausage as a topping.
- **E** Approximately 50% of customers who eat at the restaurant will prefer pepperoni as a topping.





7

MA0720026\_3,4

Which fractions are equivalent to

 $\frac{-3}{7}$ ?

Select **two** correct answers.







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