



Mathletes Challenge

2026

Round 1 - Test 1

4

Unleash your problem-solving power!



4

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Question 1

Which expression has the same value as $1,435 \div 7$?

Select one answer.

- A** $(14 \div 7) + (35 \div 7)$
- B** $(14 \div 7) - (35 \div 7)$
- C** $(1,400 \div 7) + (35 \div 7)$
- D** $(1,400 \div 7) - (35 \div 7)$

Question 2

Which comparison is true?

Select one answer.

- A** $4.7 = 7.4$
- B** $0.3 > 0.8$
- C** $0.20 = 0.02$
- D** $0.06 < 0.10$

Question 3

Mr. Reis made 5 batches of cookies. He used $\frac{3}{4}$ cup of sugar to make each batch.

What is the total amount of sugar, in cups, Mr. Reis used to make 5 batches of cookies?

Select one answer.

A $\frac{3}{20}$

B $\frac{15}{20}$

C $\frac{8}{9}$

D $\frac{15}{4}$

Question 4

Samuel had $1\frac{7}{8}$ cups of milk. He used $1\frac{5}{8}$ cups of milk to make biscuits.

What is the amount of milk, in cups, that Samuel had after he made biscuits?

Select one answer.

A $\frac{2}{8}$

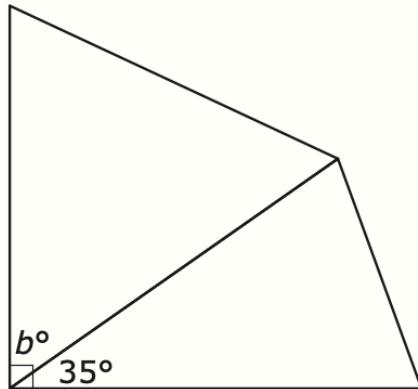
B $\frac{12}{8}$

C $1\frac{2}{8}$

D $3\frac{4}{8}$

Question 5

A student drew a quadrilateral with one right angle. The student then divided the quadrilateral into two triangles. The student measured one angle in one of the triangles as shown in the figure.

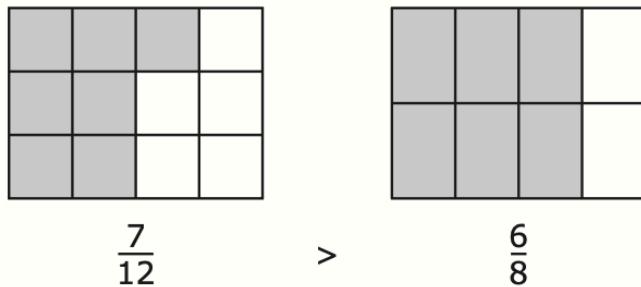


Which solution path could the student use to find the value of b without measuring the angle?

- A** add 35 to 90
- B** divide 90 by 35
- C** multiply 35 by 90
- D** subtract 35 from 90

Question 6

A student used these models to compare the fractions $\frac{7}{12}$ and $\frac{6}{8}$. The student incorrectly claimed that $\frac{7}{12} > \frac{6}{8}$ because more sections are shaded in the model that represents the fraction $\frac{7}{12}$ than in the model that represents the fraction $\frac{6}{8}$.

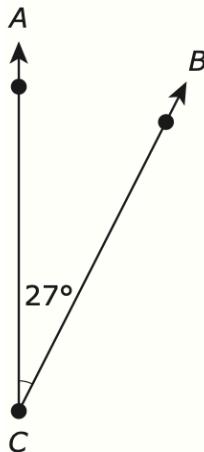


Which statements explain why the claim is incorrect?

- A** The student only compared the numerators. The student should have compared the number of parts and the shape of each part in each model.
- B** The student only compared the denominators. The student should have compared the number of parts and the shape of each part in each model.
- C** The student only compared the numerators. The student should have compared the number of shaded parts and the size of each part in each model.
- D** The student only compared the denominators. The student should have compared the number of shaded parts and the size of each part in each model.

Question 7

The diagram shows angle ACB .



Which statement is true about angle ACB ?

- A** The number of 1° angles that angle ACB turns through is twenty-seven.
- B** The number of 7° angles that angle ACB turns through is twenty.
- C** The number of 20° angles that angle ACB turns through is seven.
- D** The number of 90° angles that angle ACB turns through is twenty-seven.

Question 8

What is the value of $\frac{3}{10} + \frac{8}{100}$?

Select one answer.

A $\frac{11}{110}$

B $\frac{11}{100}$

C $\frac{38}{110}$

D $\frac{38}{100}$

Question 9

What is the value of $4\frac{1}{4} - 1\frac{3}{4}$?

A $3\frac{3}{4}$

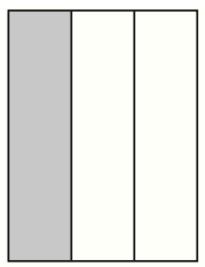
B $3\frac{2}{4}$

C $3\frac{1}{4}$

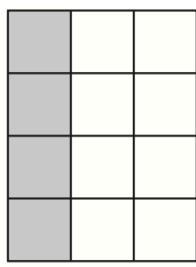
D $2\frac{2}{4}$

Question 10

Each model shown represents one whole and each model is shaded into equal parts.



Model 1



Model 2

Which expression represents the equivalent fractions shown by the shaded parts in the models?

A $\frac{1}{3} = \frac{1+3}{3+3}$

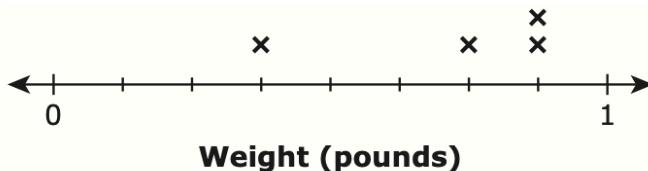
B $\frac{1}{3} = \frac{1 \times 4}{3 \times 4}$

C $\frac{1}{2} = \frac{1+3}{2+3}$

D $\frac{1}{2} = \frac{1 \times 4}{2 \times 4}$

Question 11

This line plot shows the weights, in pounds, of different objects in a student's backpack.

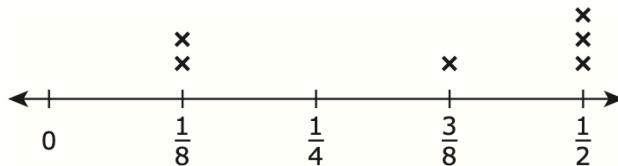


What is the difference, in pounds, between the greatest weight and the least weight?

- A** $\frac{3}{8}$
- B** $\frac{4}{8}$
- C** $\frac{5}{8}$
- D** $\frac{6}{8}$

Question 12

There are six different pies left over after a party. Each of the pies has a fractional amount left at the end of the party. The line plot shows the fractions of pies leftover.



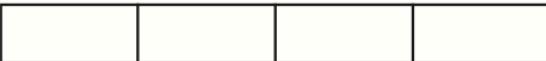
Each person who attended the party will receive an equal amount of the leftover pie.

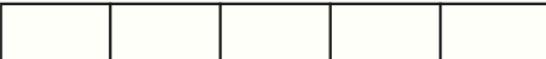
Which piece of information is needed to determine how much pie each person should receive?

- A** the types of pie that are left over
- B** the type of pie each person likes most
- C** the number of slices in each whole pie
- D** the number of people who attended the party

Question 13

Each of these models is divided into equal parts.

Model A:  = 1 whole

Model B:  = 1 whole

Model C:  = 1 whole

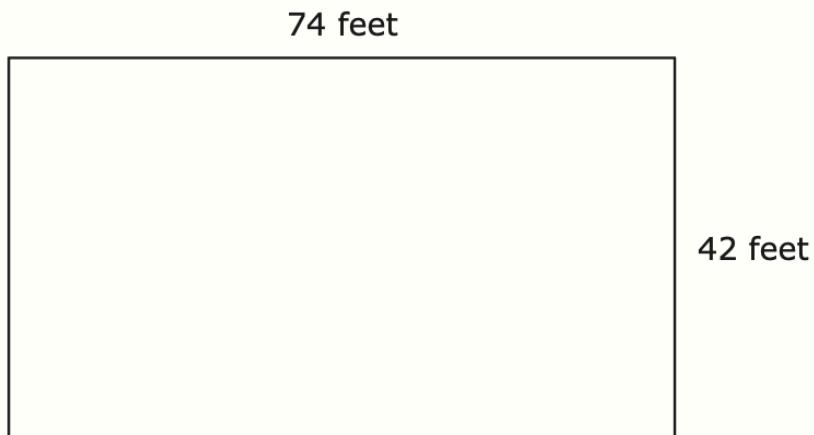
A baker will make 3 pies. The baker needs $\frac{1}{4}$ teaspoon of salt for each pie. The baker will shade parts in one of the models to represent the fraction of a teaspoon of salt needed for 3 pies.

How many parts should be shaded in which model?

- A** 3 parts in Model A should be shaded.
- B** 3 parts in Model C should be shaded.
- C** 4 parts in Model B should be shaded.
- D** 4 parts in Model C should be shaded.

Question 14

The figure represents a rectangular floor. A custodian is installing tiles on the floor. Each tile covers 2 square feet of area.



Which steps should the custodian take to find the number of tiles needed?

- A** First, the custodian should add the four side lengths. Next, the custodian should divide the result by 2.
- B** First, the custodian should add the four side lengths. Next, the custodian should multiply the result by 2.
- C** First, the custodian should multiply the length by the width. Next, the custodian should divide the result by 2.
- D** First, the custodian should multiply the length by the width. Next, the custodian should multiply the result by 2.

Question 15

A student added $\frac{3}{10}$ and $\frac{2}{100}$ and got a result of $\frac{5}{100}$. The student's work is shown.

Step 1 (replace $\frac{3}{10}$ with an equivalent fraction): $\frac{3}{10} + \frac{2}{100} = \frac{3}{100} + \frac{2}{100}$

Step 2 (combine fractions): $\frac{3}{100} + \frac{2}{100} = \frac{3+2}{100}$

Step 3 (add numerators): $\frac{3+2}{100} = \frac{5}{100}$

Which statement is true about the student's work and answer?

- A** The work and answer are correct.
- B** The answer is incorrect. The student made a mistake in step 1 because $10 + 100 = 110$.
- C** The answer is incorrect. The student made a mistake in step 1 because $\frac{3}{10}$ is not equal to $\frac{3}{100}$.
- D** The answer is incorrect. The student made a mistake in step 2 because $100 + 100 = 200$.

Question 16

What is the value of $\frac{5}{7} - \frac{1}{3}$?

A $\frac{4}{21}$

B $\frac{8}{21}$

C $\frac{4}{7}$

D $\frac{4}{4}$

Question 17

Tom travels $3\frac{2}{3}$ miles to school every day. Sara travels $\frac{3}{5}$ of Tom's distance.

How many miles does Sara travel to school?

A $2\frac{1}{5}$

B $3\frac{1}{15}$

C $3\frac{2}{5}$

D $6\frac{1}{9}$

Question 18

Which table shows expressions that represent these phrases?

- 8 more than the product of 5 and 7
- 5 times the sum of 7 and 8

Select one answer.

A

8 more than the product of 5 and 7	5 times the sum of 7 and 8
$(8 + 5) \times 7$	$5 \times 7 + 8$

B

8 more than the product of 5 and 7	5 times the sum of 7 and 8
$8 + 5 \times 7$	$5 \times 7 + 8$

C

8 more than the product of 5 and 7	5 times the sum of 7 and 8
$(8 + 5) \times 7$	$5 \times (7 + 8)$

D

8 more than the product of 5 and 7	5 times the sum of 7 and 8
$8 + 5 \times 7$	$5 \times (7 + 8)$

Question 19

A student started a project using a pencil with a length of $7\frac{1}{2}$ inches. After the student completed the project, the pencil had a length of $5\frac{7}{8}$ inches.

How much shorter, in inches, was the pencil after the student completed the project than when the student started the project?

- A** $1\frac{4}{8}$
- B** $1\frac{5}{8}$
- C** $2\frac{3}{8}$
- D** $2\frac{6}{8}$

Question 20

There are 18 students in Ms. Avila's reading class. Ms. Avila will assign an equal number of pages for each student to read aloud from a book that contains a total of 45 pages.

What is the total number of pages that each student will read aloud?

Select one answer.

- A** $\frac{2}{5}$
- B** $2\frac{1}{2}$
- C** 27
- D** 63

**END
OF
TEST**

ANSWER KEY - 2026 ROUND 1 - TEST 1

1. C	11. B
2. D	12. D
3. D	13. A
4. A	14. C
5. D	15. C
6. C	16. B
7. A	17. A
8. D	18. D
9. D	19. B
10. B	20. B