

Student Name:



2015-2016

5th Grade Math

Final Comprehensive

**Huntersville Elementary School
North Carolina**

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CALCULATOR INACTIVE

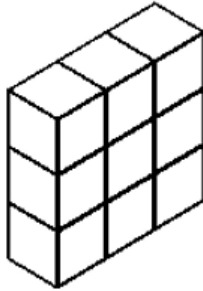
The items in this test are based on the Common Core State Standards for Mathematics.

DIRECTIONS FOR THE CALCULATOR INACTIVE SECTION OF THE TEST:

- Calculators may not be used during this test.
- Read each problem carefully.
- Choose the best answer from the choices given.
- Fractions in some answer choices may have been simplified. Check each answer choice to see if this has been done.
- Diagrams used in the test may not be drawn to scale.
- Stop when you see the words "STOP. END OF CALCULATOR INACTIVE TEST."
- When you have completed the calculator inactive questions, read and follow the directions at the end of this section of the test.



1. Jana made a rectangular prism with a volume of 27 cubic units. Khalil's rectangular prism is shown.



Whose rectangular prism is larger, and by how much?

- A Jana's rectangular prism is 3 times as large as Khalil's rectangular prism.
- B Jana's rectangular prism is 9 times as large as Khalil's rectangular prism.
- C Khalil's rectangular prism is 3 times as large as Jana's rectangular prism.
- D Khalil's rectangular prism is 9 times as large as Jana's rectangular prism.
2. Which expression has the *greatest* value?
- A $2[(4 + 9) - 1]$
- B $3 \times 5[(12 - 7) + 2]$
- C $6[(22 - 7) \times 4] \div 10$
- D $[(100 - 2) \times 10] \div 4$
3. Silvana and William are playing a game. William describes a series of calculations, and Silvana must *correctly* write the calculation mathematically. William says, "5 times the difference of 9 and 7 is increased by 3."

Which mathematical expression *could* Silvana write to reflect William's statement?

- A $5 \times 7 - 9 + 3$
- B $5 \times 7 - (9 + 3)$
- C $5 \times 9 - 7 + 3$
- D $5 \times (9 - 7) + 3$



4. In which number does the 3 have a value that is 10 times as great as its value in 23?
- A 0.23
B 2.3
C 230
D 2,300
5. Educational Digest costs \$2.95 per month. A 12-month subscription can be purchased at a discounted price of \$15.96.
- What is the cost of 1 discounted magazine, and what is the difference between the price of a single magazine and the discounted monthly price?
- A \$1.33; the difference is \$1.62.
B \$1.36; the difference is \$1.59.
C \$1.59; the difference is \$1.36.
D \$1.62; the difference is \$1.33.
6. Which *correctly* shows 6.94 written in expanded form?
- A $6 \times 1 + 9 \times \left(\frac{1}{100}\right) + 4 \times \left(\frac{1}{1,000}\right)$
B $6 \times 1 + 9 \times \left(\frac{1}{10}\right) + 4 \times \left(\frac{1}{100}\right)$
C $6 \times 10 + 9 \times 1 + 4 \times \left(\frac{4}{10}\right)$
D $6 \times 100 + 9 \times 10 + 4 \times 1$



7. Which is equivalent to the sum of $\frac{4}{5}$ and $\frac{7}{3}$?

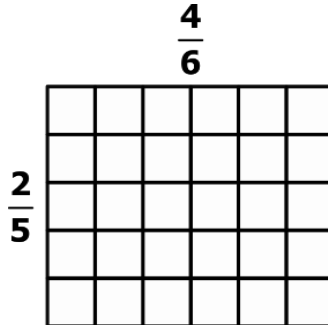
A $\frac{11}{8} + \frac{11}{8}$

B $\frac{12}{8} + \frac{35}{8}$

C $\frac{4}{15} + \frac{7}{15}$

D $\frac{12}{15} + \frac{35}{15}$

8. The model shown can be used to find the product of $\frac{2}{5}$ and $\frac{4}{6}$.



What fraction of the model is equal to $\frac{2}{5} \times \frac{4}{6}$?

A $\frac{4}{30}$

B $\frac{6}{30}$

C $\frac{8}{30}$

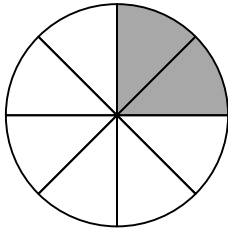
D $\frac{12}{30}$



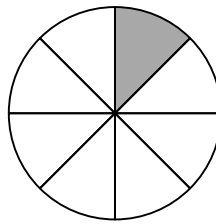
9. Arthur bought a pizza and ate $\frac{3}{8}$ of the pizza for lunch. Arthur ate more of the pizza for dinner. After Arthur ate more, $\frac{1}{4}$ of the pizza remained.

Which fraction model represents the amount of the pizza Arthur ate for dinner?

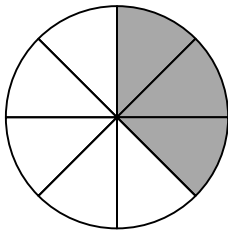
A



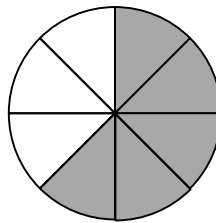
C



B



D



10. Jayla makes frosting using a recipe which combines $\frac{3}{5}$ cup of butter with $\frac{3}{4}$ cup of cream cheese. How much frosting does Jayla make?

- A $\frac{6}{20}$ cup
- B $\frac{3}{9}$ cup
- C $\frac{6}{9}$ cup
- D $1\frac{7}{20}$ cups



Use the information given to answer questions 11-12.

The table shows the costs per cookie for chocolate chip and sugar cookies at the local bakery.

Cookie	Cost per Cookie
chocolate chip	\$0.93
sugar	\$0.65

11. If Filip buys 2 chocolate chip cookies and 4 sugar cookies, what is the total cost?

- A \$1.58
- B \$1.86
- C \$4.46
- D \$5.02

12. Filip notices a pattern when purchasing chocolate chip cookies. The cost of 1 chocolate chip cookie is \$0.93. The cost of 10^1 chocolate chip cookies is \$9.30.

How much would it cost to buy 10^2 chocolate chip cookies, and why?

- A \$18.60 because 10^2 means 10×2 .
- B \$93.00 because 10^2 means 10×10 .
- C \$186.00 because 10^2 means $10 \times 10 \times 2$.
- D \$930.00 because 10^2 means $10 \times 10 \times 10$.

13. Mrs. Baker has 75 pounds of potting soil. She wants to distribute the potting soil evenly among 9 homes.

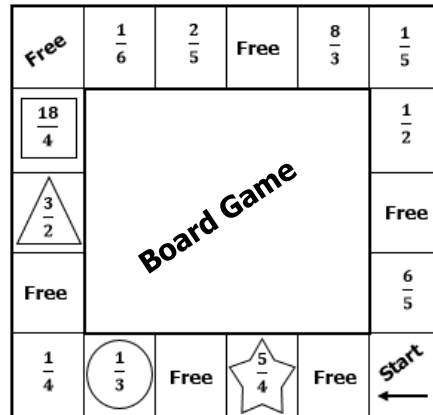
How many pounds of potting soil will each home receive?

- A $\frac{3}{25}$ pound
- B $8\frac{3}{75}$ pounds
- C $8\frac{1}{3}$ pounds
- D 66 pounds



Use the information given to answer questions 14-15.

Camille and Jefferson are playing a board game in class. Each player rolls a number cube at the same time. The players move the number of spaces indicated on the number cube. During Round 1, the players must add the two fractions together. During Round 2, the players must subtract the two fractions.



14. For Round 1, Camille rolls a 2 and lands on the starred space. Jefferson rolls a 4 and lands on the circled space.

What is the sum of the two fractions?

- A $\frac{5}{6}$
- B $1\frac{7}{12}$
- C 5
- D $5\frac{3}{4}$

15. For Round 2, Camille rolls a 6 and lands on the squared space. Jefferson rolls a 3 and lands on the triangled space.

What is the difference of $\frac{18}{4}$ and $\frac{3}{2}$?

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



16. Six co-workers each brought $\frac{3}{4}$ pound of spaghetti for lunch. Which expression *could* be used to find the total amount of spaghetti the co-workers brought?

A $6 \times \frac{3}{4}$

B $6 \div \frac{3}{4}$

C $\frac{1}{6} \times \frac{3}{4}$

D $\frac{1}{6} \div \frac{3}{4}$

17. A restaurant sells burritos that weigh $\frac{1}{4}$ pound each. If a family orders 8 burritos, how many pounds of burritos will the family receive?

A $\frac{1}{32}$ pound

B 2 pounds

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

D 32 pounds

18. What is the difference between $6\frac{2}{4}$ and $\frac{1}{6}$?

A $2\frac{1}{12}$

B $6\frac{1}{3}$

C $6\frac{2}{3}$

D $12\frac{1}{2}$



DIRECTIONS FOR THE GRIDDED RESPONSE SECTION OF THE TEST:

- Questions 1 through 6 require you to write your answers in the boxes provided on the back of your answer document.
- Write only the number or symbol in each box, and fill in the circle in each column that matches what you have printed.
- Fill in only 1 circle in each column.

1. A flower shop has 460 dozen roses. How many roses are in the flower shop?

2. What is the quotient of $7,518 \div 14$?

3. What is 582.476 rounded to the *nearest* hundredth?

4. Ivan is multiplying multi-digit numbers for his homework. He solves the problem shown in the box.

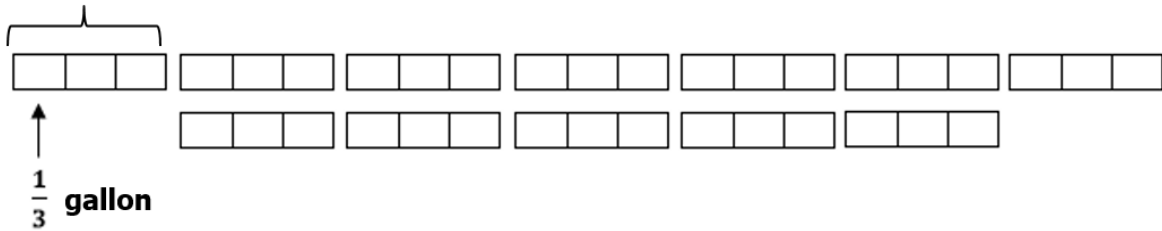
$\begin{array}{r} 2,048 \\ \times 375 \\ \hline \end{array}$

What number is Ivan's answer?



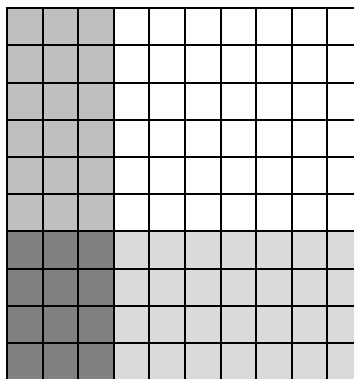
5. Maria has 12 gallons of lemonade. She wants to give each of her friends $\frac{1}{3}$ gallon of lemonade.

1 gallon of lemonade



How many friends can receive $\frac{1}{3}$ gallon of lemonade?

6. Hugo uses the grid shown to solve the decimal multiplication problem 0.3×0.4 .



What is the product of the problem Hugo is solving?

(Write the answer as a decimal to 2 places.)



END OF CALCULATOR INACTIVE SECTION

DIRECTIONS:

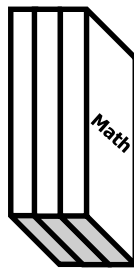
- Look back over your answers for the calculator inactive questions. You will *not* be able to go back and work on these questions once you are given a calculator.
- Raise your hand to let your teacher know you are ready to begin the calculator active questions.
- Do not begin work on the calculator active test questions until your teacher has given you a calculator.
- Turn your answer document over to the multiple choice side.
- When your teacher has given you a calculator, **GO TO THE NEXT PAGE**, and **BEGIN** the calculator active questions.



19. Fatima baked 7 cakes for her work's office party. She will give each co-worker $\frac{1}{8}$ slice of cake.

How many slices of cake can Fatima give?

- A 7 slices
 - B 8 slices
 - C 52 slices
 - D 56 slices
20. Santiago has three textbooks for school. The dimensions of each textbook are 14 in. \times 8 in. \times 1 in.

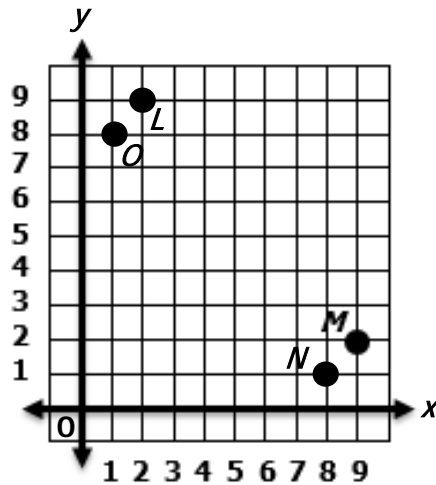


What is the volume of all three textbooks stacked together?

- A 336 cubic inches
 - B 336 square inches
 - C 112 cubic inches
 - D 112 square inches
21. Which shape always has four equal sides?
- A parallelogram
 - B rectangle
 - C rhombus
 - D trapezoid



22. Which point is located at the coordinate $(2, 9)$?



- A point L
- B point M
- C point N
- D point O

23. Valerie and her friend, Craig, want to know whose brother is taller. Valerie's brother is 76 inches tall. Craig's brother is 6 feet, 3 inches tall.

Whose brother is taller, and by how much?

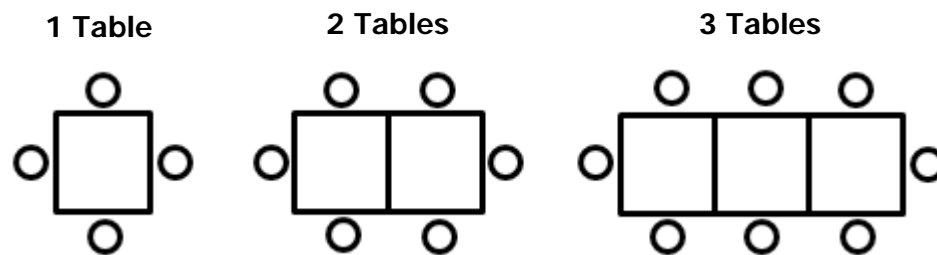
- A Craig's brother is taller by 3 inches.
- B Valerie's brother is taller by 1 inch.
- C Craig's brother is taller by 1 foot.
- D Valerie's and Craig's brothers are the same height.



24. Drew bought a new crate for his dog. The new crate is $1\frac{3}{4}$ times the size of the original crate. The original size of his dog's crate was $8\frac{1}{2}$ square feet.

What is the size of the new dog crate?

- A $6\frac{3}{8}$ square feet
 B $8\frac{3}{8}$ square feet
 C $9\frac{4}{6}$ square feet
 D $14\frac{7}{8}$ square feet
25. A restaurant has square tables. Each square table can seat four customers. If a party of more than four people arrives at the restaurant, the host has to place multiple tables together. The arrangement of tables is shown. Each ○ represents one customer.



Using the same pattern, how many people can sit around a single arrangement made from six tables?

- A 10 people
 B 12 people
 C 14 people
 D 16 people
26. Which statement is true?
- A All rectangles are squares.
 B All squares are rhombuses.
 C All quadrilaterals are rectangles.
 D All quadrilaterals are parallelograms.



Use the information given to answer questions 27-28.

A person's weight on Earth is different than on the moon. The weight of a person on the moon is *approximately* $\frac{4}{25}$ of the same person's weight on Earth.

27. Which statement about a person's weight is true?

- A A person weighs more on Earth than on the moon.
- B A person weighs less on Earth than on the moon.
- C A person weighs the same on Earth as on the moon.
- D The difference in weights cannot be determined.

28. If a person weighs 130 pounds on Earth, how much does that person weigh on the moon?

- A $150\frac{4}{5}$ pounds
- B $150\frac{4}{25}$ pounds
- C $20\frac{4}{5}$ pounds
- D $20\frac{4}{25}$ pounds

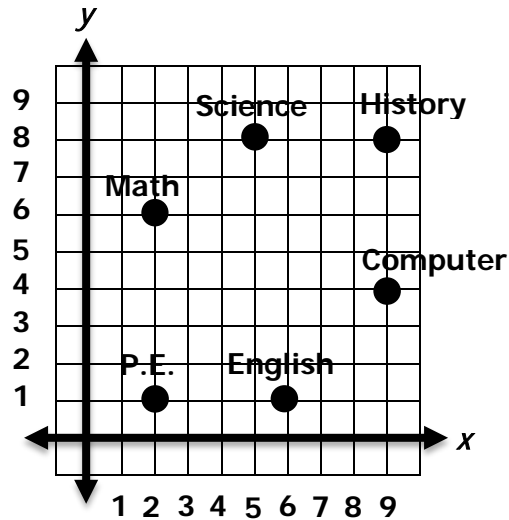
29. Casey, Lawrence, and Zach form a team to compete in a bicycle relay race. Casey bikes $\frac{1}{4}$ of the relay race, Lawrence bikes $\frac{2}{5}$ of the relay race, and Zach bikes the remaining part of the race. Zach claims he biked the largest portion of the race.

Is Zach correct or incorrect, and why?

- A Zach is correct because 20 is larger than 4 and 5.
- B Zach is correct because 7 is larger than 1 and 2.
- C Zach is incorrect because $\frac{7}{20}$ is smaller than $\frac{5}{20}$.
- D Zach is incorrect because $\frac{7}{20}$ is smaller than $\frac{8}{20}$.



30. The grid shows the locations of six classrooms in Alison's school.



Which ordered pair represents the location of Alison's math class?

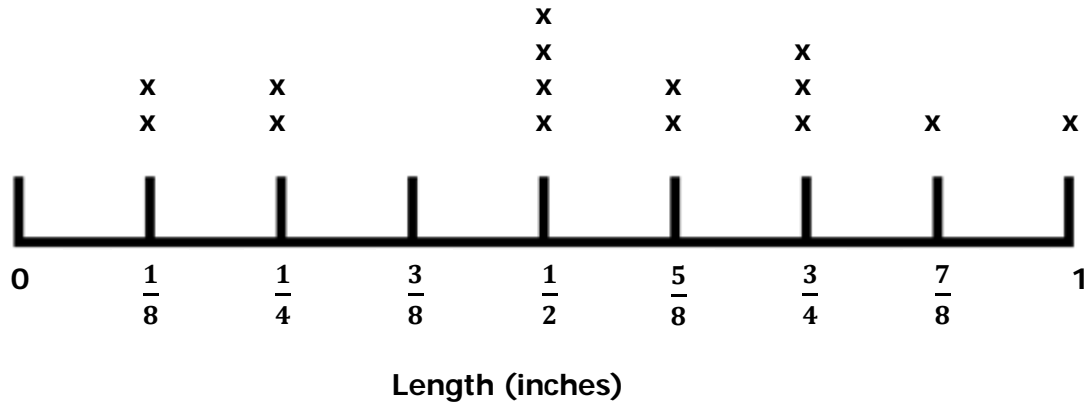
- A (2, 6)
- B (3, 7)
- C (6, 2)
- D (7, 3)

31. Which statement *correctly* describes the product of $3 \times \frac{4}{5}$?

- A The product of $3 \times \frac{4}{5}$ is less than 3 because $\frac{4}{5}$ is greater than 1.
- B The product of $3 \times \frac{4}{5}$ is less than 3 because $\frac{4}{5}$ is less than 1.
- C The product of $3 \times \frac{4}{5}$ is greater than 3 because 4 is larger than 3.
- D The product of $3 \times \frac{4}{5}$ is greater than 3 because 5 is larger than 3.



32. Bentley has 15 different size screws in his toolbox. The sizes of the screws are determined by their lengths. The line plot shows the amount of screws Bentley has in each particular size.



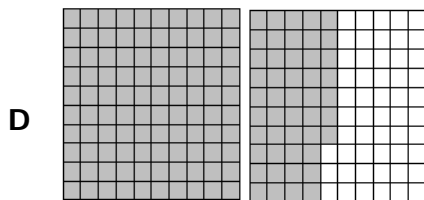
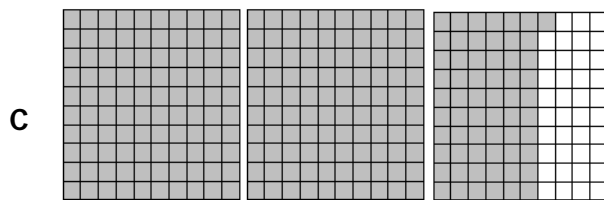
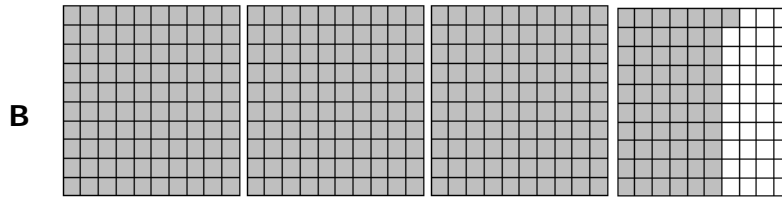
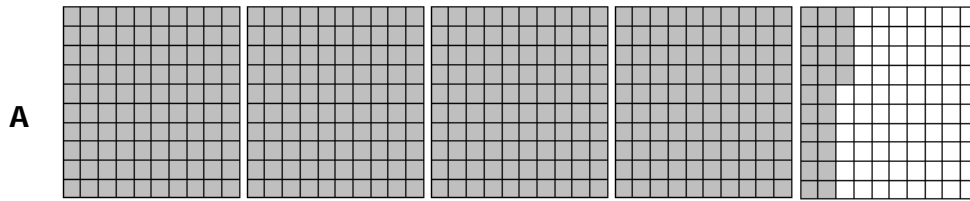
What is the total length, in inches, of the screws?

- A $5\frac{1}{2}$ inches
- B $6\frac{1}{2}$ inches
- C $8\frac{1}{8}$ inches
- D $15\frac{1}{8}$ inches
33. A bucket of popcorn at the movie theater consists of 1,200 calories. If 7 friends want to split the bucket of popcorn evenly, which fraction can be used to determine the calorie intake per friend?

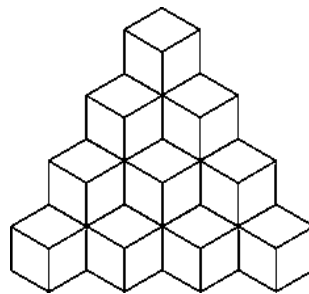
- A $\frac{2}{1,200}$
- B $\frac{7}{1,200}$
- C $\frac{1,200}{2}$
- D $\frac{1,200}{7}$



34. Which model shows the sum of 2.54 and 1.07?



35. Each cube has side lengths of 1 inch.

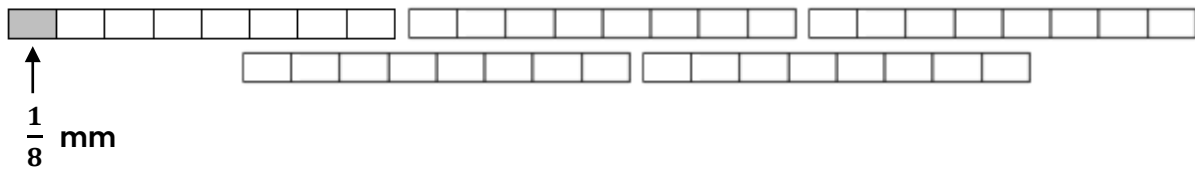


Assuming the shape is solid for parts not shown, what is the volume of this shape?

- A 10 in.³
- B 16 in.³
- C 19 in.³
- D 20 in.³



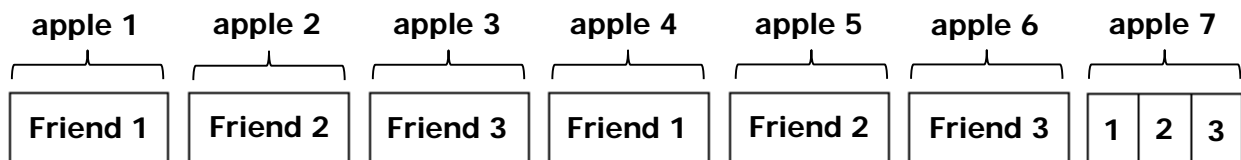
36. Lucy is looking at a cell under a microscope. The size of the actual cell is $\frac{1}{8}$ mm.



If the microscope magnifies the size of the cell by 40, how big does the cell appear?

- A 1 millimeter
- B 5 millimeters
- C 8 millimeters
- D 40 millimeters

37. Three friends want to divide 7 apples equally.

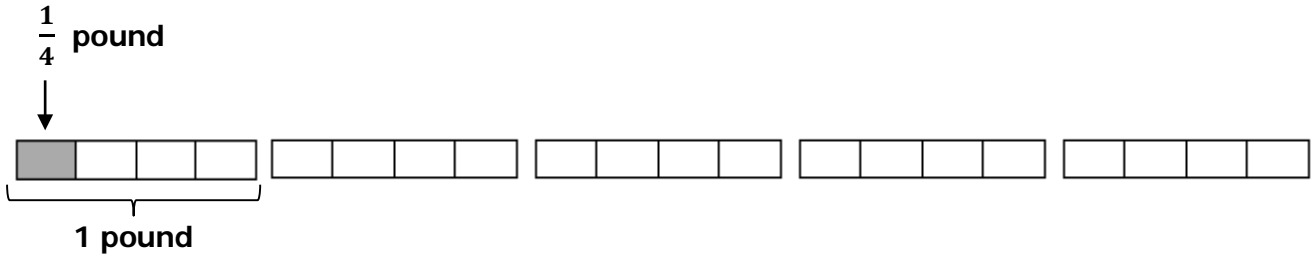


How many apples will each friend receive?

- A $\frac{3}{7}$ apple
- B 1 apple
- C $2\frac{1}{3}$ apples
- D 3 apples



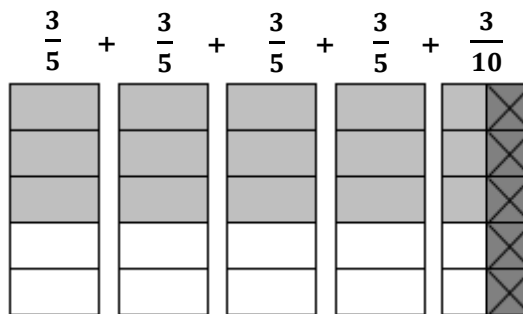
38. Marc’s container holds 5 pounds of fries.



If he uses a scoop that holds $\frac{1}{4}$ pound of fries, how many scoops of fries will it take Marc to fill his container?

- A $\frac{4}{5}$ scoop
- B $1\frac{1}{4}$ scoops
- C 4 scoops
- D 20 scoops

39. The cafeteria has $4\frac{1}{2}$ tables full of students. Three-fifths of the students are boys.



How many tables would it take to seat only the boys?

- A $2\frac{7}{10}$ tables
- B $3\frac{3}{5}$ tables
- C $5\frac{3}{10}$ tables
- D $7\frac{1}{2}$ tables



END OF MATH TEST

DIRECTIONS:

- Put all your papers inside your test booklet, and close your test booklet.
- Place your calculator on top of the test booklet.
- Stay quietly in your seat until your teacher tells you that testing has finished.