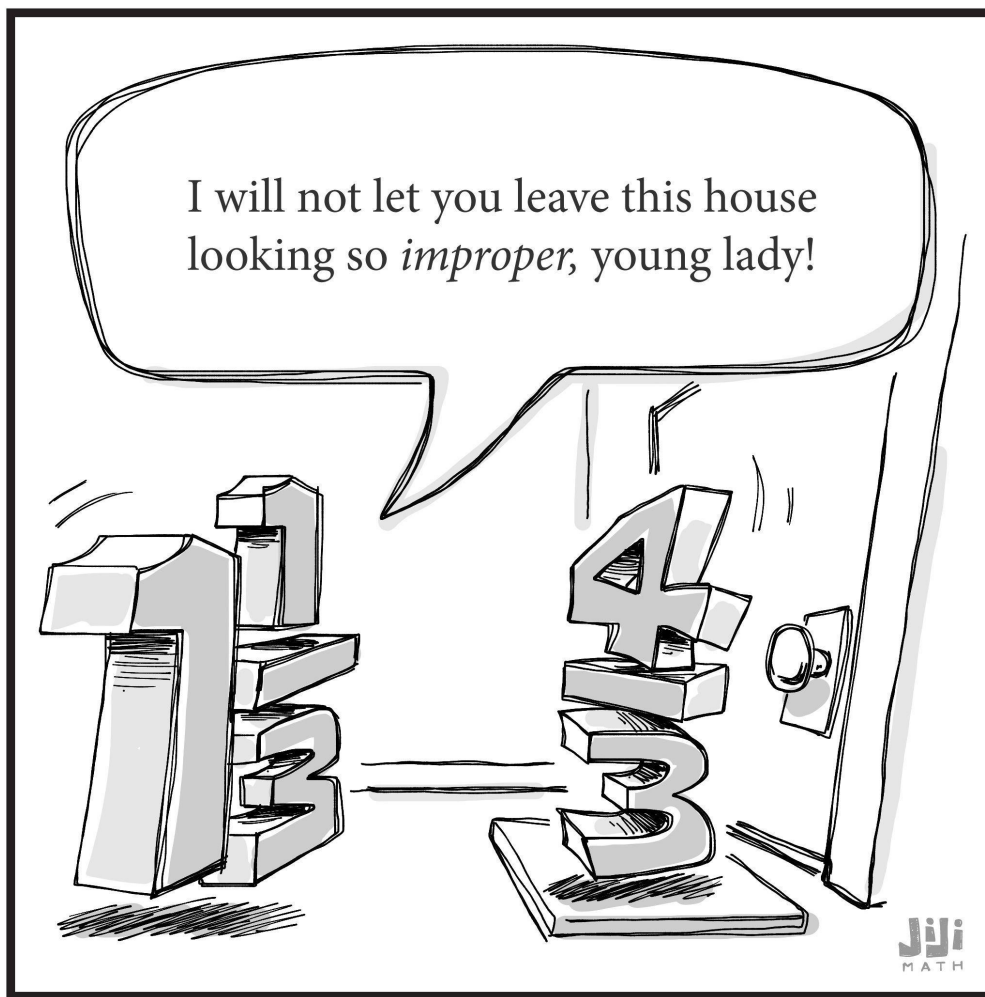


Fourteenth Annual PI Competition

4th Grade Individual Test



YOU WILL HAVE 60 MINUTES TO COMPLETE THIS TEST. THERE ARE 30 MULTIPLE CHOICE QUESTIONS. MARK YOUR ANSWER ON THE ANSWER SHEET. NO AIDS SUCH AS CALCULATORS, NOTES, BOOKS, ETC., MAY BE USED IN COMPLETING THIS TEST. ALL FRACTIONS MUST BE IN SIMPLEST FORM. **THE CHOICE E. NOTA, DENOTES “NONE OF THE ABOVE.” IF NONE OF THE ANSWERS ARE CORRECT, CHOOSE E.**

WATCH OUT FOR SILLY MISTAKES. REMEMBER THAT THESE QUESTIONS ARE MEANT TO BE CHALLENGING FOR EVEN THE TOP STUDENTS.

GOOD LUCK AND HAVE FUN!

1. Simplify: $6 + 5 \times 7 - 3$

A. 74 B. 38 C. 44 D. 57 E. NOTA

2. What are the factors of 81?

A. 1, 81 B. 1, 3, 9 C. 1, 3, 9, 27, 81 D. 3, 9, 27 E. NOTA

3. Which of the following numbers is the smallest?

A. $\frac{3}{4}$ B. $\frac{5}{8}$ C. $\frac{2}{3}$ D. $\frac{5}{6}$ E. NOTA

4. Kaylee has crayons and pencils on her desk. The number of crayons (C) equals 3 less than the number of pencils (P) on her desk. Which expression represents the relationship between the number of crayons and pencils on Kaylee’s desk?

A. $P = C - 3$ B. $C = P - 3$ C. $P = C + 3$ D. $C = P + 3$ E. NOTA

5. If Megan selected 30 cards out of the 60 that were in the deck, what fraction of the cards did she select?

A. $\frac{2}{3}$ B. $\frac{1}{4}$ C. $\frac{3}{4}$ D. $\frac{1}{3}$ E. NOTA

6. Kathryn and Ben are sharing a package of jelly beans. Kathryn eats all of the purple jelly beans, which make up $\frac{1}{5}$ of the package. Ben eats all of the orange jelly beans, which make up $\frac{4}{15}$ of the package. How much of the package of jelly beans is left?

A. $\frac{2}{3}$ B. $\frac{7}{15}$ C. $\frac{3}{5}$ D. $\frac{8}{15}$ E. NOTA

7. How many sides does a heptagon have?

A. 5 B. 6 C. 7 D. 8 E. NOTA

8. If Dat can complete $\frac{1}{4}$ of a math test in 15 minutes, how many minutes will it take him to finish the test?

A. 60 B. 45 C. 80 D. 30 E. NOTA

9. What is the value of $44.7 + 51.8$?

A. 95.5 B. 94.5 C. 97.5 D. 96.5 E. NOTA

10. Which of the following fractions does NOT equal 0.4?

A. $\frac{4}{10}$ B. $\frac{2}{5}$ C. $\frac{12}{30}$ D. $\frac{8}{32}$ E. NOTA

11. Dylan has 4 pennies, 5 nickels, 3 dimes, and 11 quarters in his piggy bank. How much money is in Dylan's piggy bank?

A. \$3.35 B. \$3.37 C. \$3.54 D. \$3.44 E. NOTA

12. Determine the following product: 1238×269

A. 334,530 B. 321,880 C. 333,022 D. 48,282 E. NOTA

13. Timmy ate 32 crackers on Wednesday. On Thursday, Timmy ate 4 times the amount of crackers he ate on Wednesday. How many crackers did Timmy eat in total?
- A. 160 B. 128 C. 96 D. 8 E. NOTA
14. What is the value of 5,675,314 rounded to the nearest hundred thousand's place?
- A. 5,675,300 B. 5,600,000 C. 5,700,000 D. 5,675,000 E. NOTA
15. A fruit basket can hold 2 watermelons. What is the minimum amount of fruit baskets that can be used to hold 317 watermelons?
- A. 157 B. 158 C. 159 D. 160 E. NOTA
16. A fence has a length of 35 feet and a width of 20 feet. What is the perimeter of the fence if its length and width are both increased by 1 inch?
- A. 756 feet B. 112 feet C. 704 feet D. 114 feet E. NOTA
17. Which two prime numbers have a sum of 50?
- A. 30, 20 B. 17, 23 C. 27, 23 D. 37, 13 E. NOTA
18. What is the product of $\frac{4}{12}$ and $\frac{2}{3}$?
- A. $\frac{2}{9}$ B. $\frac{1}{4}$ C. $\frac{1}{6}$ D. $\frac{3}{4}$ E. NOTA
19. Adam, Jack, and Ryan shared a pizza. If Adam ate $\frac{3}{8}$ of the pizza, Jack ate $\frac{2}{5}$ of the pizza, and Ryan ate the rest of the pizza, who ate the most pizza?
- A. Adam B. Jack C. Ryan D. Jack and Ryan E. NOTA
20. Sydney is a softball player. For every 4 pitches thrown at her, she hits the ball 3 times. How many times does Sydney hit the ball if 64 pitches are thrown at her?
- A. 21 B. 48 C. 16 D. 24 E. NOTA

21. Let X equal the number of positive factors of 7. Let Y equal the number of positive factors of 32. What is the value of $X + Y$?

- A. 4 B. 6 C. 7 D. 8 E. NOTA

22. If it is now 7:00 PM, what time will it be in 800 hours?

- A. 3:00 PM B. 4:00 AM C. 8:00 AM D. 3:00 AM E. NOTA

23. Olivia wants to buy new headphones, which cost 36 sheeds. Given that 3 sheeds are equal to 9 pheeds, and 4 pheeds are equal to 12 theeds, how many sheeds would Olivia need to buy the headphones?

- A. 324 B. 108 C. 144 D. 432 E. NOTA

24. Which of the following statements are TRUE?

I. $\frac{12}{27} > \frac{5}{12}$

II. $3 \times 4 < 2 \times 6$

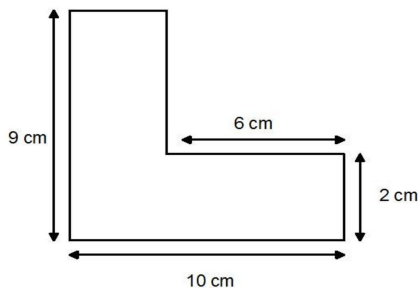
III. $0.4 = \frac{8}{20}$

- A. I only B. I and III C. II and III D. I, II, and III E. NOTA

25. The floor of a rectangular room is covered in square tiles. If the room is 12 tiles long and 7 tiles wide, how many tiles are touching the walls of the room?

- A. 38 B. 36 C. 34 D. 32 E. NOTA

26. What is the area of the shape below?

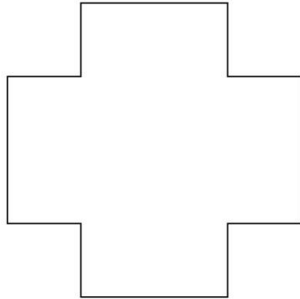


- A. 78 cm^2 B. 74 cm^2 C. 38 cm^2 D. 48 cm^2 E. NOTA

27. The difference of two numbers is 8. Their quotient is 5. What is the sum of the two numbers?

- A. 14 B. 11 C. 9 D. 8 E. NOTA

28. How many lines of symmetry does the following shape have?



- A. 2 B. 6 C. 4 D. 8 E. NOTA

29. Determine the remainder of the following quotient: $1468 \div 3$

- A. 3 B. 4 C. 1 D. 2 E. NOTA

30. Welcome to the last question! It is quite difficult. A forest is filled with birds and raccoons. There are 16 heads and 42 legs in total. How many birds and how many raccoons were there in the forest?

- A. 11 birds, 5 raccoons B. 12 birds, 4 raccoons C. 8 birds, 8 raccoons
D. 10 birds, 6 raccoons E. NOTA