

2016
MATH SUPER BOWL
Fourth Grade
Individual Test

25 minutes – No Calculators

Answers must be recorded on the scantron to be counted.

1. Eduardo has 36 marbles. He groups the marbles into 9 equal groups. Then he added two more marbles to each group. If he gives 4 marbles to each of his 13 friends, how many marbles will he have left?
 - A. 0
 - B. 1
 - C. 2
 - D. 3
 - E. Not Given

2. Janie has 4 cookies to give to her five children. How much will each child get if they all get the same amount?
 - A. $\frac{1}{2}$ cookies
 - B. $\frac{4}{5}$ cookie
 - C. 1 cookie
 - D. $1\frac{1}{4}$ cookie
 - E. Not Given

3. A coffee table has a length of $20\frac{1}{2}$ in and a width of $36\frac{1}{2}$ in. What is the area of the coffee table?
 - A. 114 in.^2
 - B. 720 in.^2
 - C. 748 in.^2
 - D. $748\frac{1}{4}\text{ in.}^2$
 - E. Not Given

4. Parallelograms are four sided figures with two pairs of parallel sides. All of the following are parallelograms EXCEPT:
 - A. rectangle
 - B. trapezoid
 - C. square
 - D. rhombus
 - E. Not Given

5. Put the following in order from least to greatest. $\frac{4}{5}$, $\frac{1}{4}$, $\frac{2}{3}$, 0.3 and $\frac{2}{7}$
- A. $\frac{2}{7}$, $\frac{2}{3}$, 0.3, $\frac{1}{4}$, $\frac{4}{5}$
 - B. $\frac{1}{4}$, $\frac{2}{3}$, $\frac{2}{7}$, $\frac{4}{5}$, 0.3
 - C. $\frac{2}{7}$, $\frac{4}{5}$, $\frac{2}{3}$, $\frac{1}{4}$, 0.3
 - D. $\frac{2}{7}$, $\frac{1}{4}$, 0.3, $\frac{2}{3}$, $\frac{4}{5}$
 - E. Not Given
6. Which of the following statements is true?
- A. 600 is ten times greater than 6
 - B. 2,000 is ten times greater than 20
 - C. 50 is ten times greater than 500
 - D. 1,000 is ten times greater than 100
 - E. Not Given
7. In Mrs. Martin's class there are 24 students. Twelve of the students have black hair, 6 of the students have blonde hair, 4 of the students have brown hair, and 2 of the students have red hair. What fraction of Mrs. Martin's class has brown hair?
- A. $\frac{1}{6}$
 - B. $\frac{2}{4}$
 - C. $\frac{1}{3}$
 - D. $\frac{4}{20}$
 - E. Not Given
8. James is saving for a new bike. The bike cost \$500.00. The first month he saved \$125.50. The second month he saved \$275.00. What should James do to find how much more money he needs to save in order to buy the bike?
- A. Multiply \$500.00 and \$125.50 and then subtract \$275.00.
 - B. Add \$125.50 and \$275.00 and then subtract the sum from \$500.00.
 - C. Multiply \$500.00 and \$275.00 and then subtract \$125.50.
 - D. Add \$500.00 and \$125.50 and \$275.00.
 - E. Not Given

9. Megan needed to pick up her granny at the hairdresser at 4:30 p.m. She told her mom he was going to go to the library at noon and it takes 15 minutes to get the hairdresser. How much time will Megan have at the library before she has to leave to pick up her granny?

- A. 4 hours 15 minutes
- B. 3 hours
- C. 3 hours 15 minutes
- D. 3 hours 45 minutes
- E. Not Given

10. Jacki spent \$4.50 on 18 donuts. How much does one donut cost?

- A. 20¢
- B. 25¢
- C. 30¢
- D. 35¢
- E. Not Given

11. The state band was playing in the auditorium for the dinner for retired teachers. There are 24 tables in Section A, 34 tables in Section B, and 43 tables in Section C. There are 12 chairs at each table in section A, 16 chairs at each table in Section B, and 18 chairs at each table in Section C. If all the tables in each section are full, how many people are seated in the auditorium?

- A. 147 people
- B. 1,606 people
- C. 1,344 people
- D. 1,400 people
- E. Not Given

12. Maria bought 3 bracelets and placed them in a bag for her little sister. If her sister takes 2 bracelets at the same time without looking, how many different ways can the bracelets be taken out of the bag if the out does not matter?

- A. 2
- B. 3
- C. 4
- D. 5
- E. Not Given

13. Carlos thought of 4 numbers that formed a pattern: 19. 27. 22. 30 . . .
He challenged his best friend to continue the pattern for 2 more numbers. If the friend did this correctly, what 2 numbers did he write?

A. 36 and 31
B. 37 and 32
C. 25 and 33
D. 38 and 33
E. Not Given

14. Each week Alfredo jogs 2 miles more than he did the previous week. Last week he ran 6 miles. How many more miles will Alfredo run in the next 3 weeks?

A. 4
B. 12
C. 16
D. 30
E. Not Given

15. Sue and Barb wrote the numbers below on sheets of paper. Which change below would Barb have to make so her number will be the larger number?

Sue: 4,356,938,123
Barb: 4,356,938,123

A. Change the thousands digit to a 7
B. Change the ten-millions digit to a 1
C. Change the billions digit to a 3
D. Change the hundred-millions digit to a 4
E. Not Given

16. One-fourth of the 40 fourth graders in choir class forgot permission slips for Disneyland. Two of the students who forgot their permission slips were boys, the rest were girls. How many of the students who forgot their permission slips were girls?

A. 4
B. 10
C. 8
D. 2
E. Not Given

17. Steve ate $\frac{2}{3}$ his pizza. His father ate less of his pizza than Steve did of his. Which of the following fractions *could* represent how much pizza Steve's father ate? (The pizzas were the same size.)
- A. $\frac{3}{4}$
 - B. $\frac{7}{8}$
 - C. $\frac{4}{6}$
 - D. $\frac{3}{5}$
 - E. Not Given
18. Carla had a collection of 100 small plastic figurines. Twenty-five of the figurines are My Little Ponies, 20 are Hello Kitty, 30 are Littlest Pet Shop, and 25 are Disney characters. What percent of the figurines in Carla's collection are either My Little Pony or Littlest Pet Shop?
- A. 30%
 - B. 50%
 - C. 55%
 - D. 45%
 - E. Not Given
19. Marcus and his sister Louisa took the same test. Marcus finished $\frac{6}{8}$ of his test in 30 minutes. His sister Louisa finished only $\frac{1}{2}$ of her test in 30 minutes. Which fraction states how much more Marcus got done on his test than his sister?
- A. $\frac{5}{8}$
 - B. $\frac{1}{4}$
 - C. $\frac{1}{2}$
 - D. $\frac{5}{6}$
 - E. Not Given
20. In Mr. Binder's class the students are studying measurement. Saul is experimenting with identical wooden cubes and the weights necessary to balance a scale. After many tries Saul finally balances the scale putting 5 weights of 4.0 grams each on one side, while having 10 wooden cubes on the other. What is the weight of 1 wooden cube?
- A. 2 grams
 - B. 4 grams
 - C. 5 grams
 - D. 10 grams
 - E. Not Given

21. Joe and David both go to the same park to walk their dogs. Joe goes every 3 days, and David goes every 4 days. They were at the park together on the first day of March. What is the next day they will be at the park together?
- A. March 13
 - B. March 14
 - C. March 15
 - D. March 12
 - E. Not Given
22. The little dress shop on the corner had a sale this weekend. On Friday they sold half the dresses they had. Saturday 15 more dresses were sold. At the end of the day on Saturday only 12 dresses were left in the store. How many dresses did the shop have before the sale started?
- A. 42 dresses
 - B. 27 dresses
 - C. 54 dresses
 - D. 36 dresses
 - E. Not Given
23. On Sunday, Marianna did 3 chores at her parents' farm. The following day she did 3 chores. Each day after that Marianna did 3 chores. How many chores will Marianna do during a 4-week period?
- A. 12
 - B. 36
 - C. 72
 - D. 84
 - E. Not Given
24. Martin was practicing on the putting green. For every 8 putts he made he sunk 7 in the hole. If Martin attempted 48 putts, how many balls did he sink in the hole?
- A. 48
 - B. 46
 - C. 44
 - D. 42
 - E. Not Given

25. Six friends were in a hot dog eating contest. Together they ate 48 hot dogs. Which two contestants ate the same number of hot dogs?

- Carlos ate $\frac{1}{4}$ of all the hot dogs.
- Armand ate 4 less hot dogs than Carlos.
- Maya ate 5 more hot dogs than Maria.
- Jerry ate $\frac{2}{3}$ the amount of hot dogs that Maya ate.
- Lincoln ate the rest.
- Maria ate half as many hot dogs as Armand did.

- A. Maya and Lincoln
- B. Jerry and Carlos
- C. Lincoln and Maria
- D. Armand and Maya
- E. Not Given

**Congratulations! You've completed the individual portion
of the 2016 Math Super Bowl!**

Math Superbowl - 2016
4th Grade Individual Test Part II
5 questions in 30 minutes with calculators
Only answers on the answer sheet will be counted

1. See the sample multiplication matrix.

x	2	3	4	5
2	4	6	8	10
6	12	18	24	30
7	14	21	28	35
9	18	27	36	45

In the multiplication matrix below, the letters A-H represent the numbers 2-9. What is the value of H x D?

X	A	B	C	D
E		8		
F	15			45
G		28		
H	24		48	

2. Use the digits 0 – 9 one time each to complete the problems below. What digit goes in the shaded box?

dimes, nickels = 3 cents

is a 3-digit number with 7 in the tens column and the sum of its digits equal to 9.

9 < 6

, , 12, 16, 20, 24, 28, 32, 36, 40

3. You have 24 square tables to arrange for a dinner party. Each side of a table can seat one person. You need to arrange the tables so that each table is touching another table along the entire length of at least one side. Using all 24 square tables put together to form one large table, what is the greatest number of people that can be seated? What is the least number of people that can be seated?

4. How many dimes are in figure 23?

Figure 1

Figure 2

Figure 3



5. A builder uses a 13 foot long piece of wood as his measuring stick to measure other pieces of wood. (It is not cut up). He has a mark at 1 foot, 2 feet, and 6 feet. (Example, the builder could measure a 4-foot piece of wood by placing it between the 2 foot and 6 foot marks on the measuring wood.) If he adds one more mark, he will be able to measure every whole number distance in feet up to the length of the 13 foot piece of wood. What distance should the mark be from the beginning of the wood?

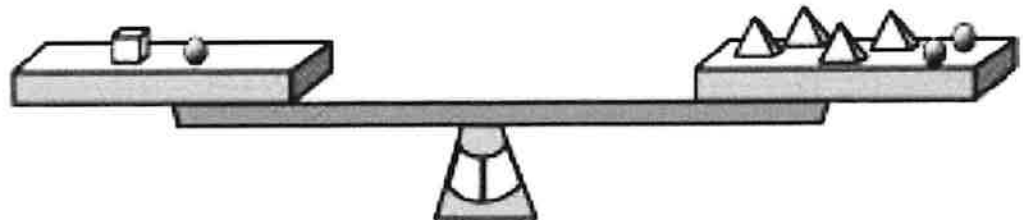
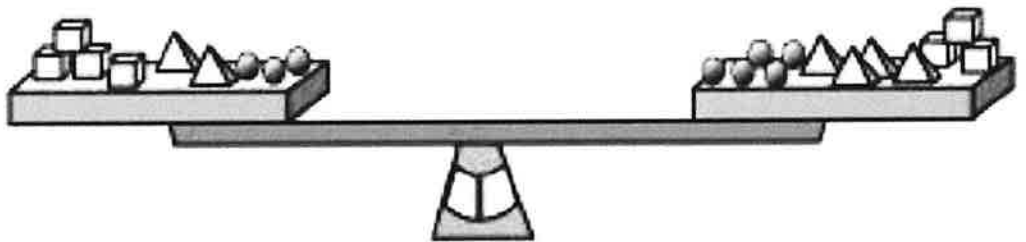
Math Superbowl - 2016

4th Grade Team Test

5 questions in 30 minutes *with* calculators done in groups of up to 4 students

Only answers on the answer sheet will be counted

1. Currently Colin has \$650 in his bank account, while Austin has \$500 in his. Every Friday afternoon Colin withdraws \$15. At the same time Austin withdraws \$10. At some point in time, other than when they have no money left, they will have the same amount of money, what amount will both have?
2. You were given your first home gym that came with four different circle disks that you can use to lift different amounts. The disks were 2 lbs, 3 lbs, 5 lbs, and 7 lbs. *Using one or more of the circle disks*, how many different weights can you make?
3. The scale balances below are being used to compare different solids. How many spheres will it take to balance a cube? (Note the weight of each different type of solid figure is consistent throughout)



4. The sum of the ages of the three Huante siblings is currently 46. Rusty is the middle child. Ed, the oldest, is currently twice as old as Erin, the youngest. Three years ago, their ages were all prime numbers. How old were Ed, Rusty, and Erin three years ago?
5. The UC Santa Barbara Graduate School of Education has a new emphasis on technology integration and has built a strong technology department. Can you determine the name of each person, their job title, and how long they have been working at UC Santa Barbara?
- Jayne, who is not the help desk support person, has worked at UCSB for 3 years.
 - Phil, who is not the network administrator, has worked at UCSB longer than his other 3 coworkers combined.
 - The device specialist is the newest person on the team. The help desk support person has worked at UCSB for more than 2 years.
 - The person who worked at UCSB for 2 years is not named Ceci. Sarah is not the technology teacher.

	Tech Teacher	Network Administrator	Device Specialist	Help Desk Support	1 week	2 years	3 years	11 years
Phil								
Jayne								
Ceci								
Sarah								
1 week								
2 years								
3 years								
11 years								

Part 1

4th Grade 2016 - Answer Key

1. C

2. B

3. D

4. B

5. E

6. D

7. A

8. B

9. A

10. B

11. B

12. B

13. C

14. D

15. D

16. C

17. D

18. C

19. B

20. A

21. A

22. C

23. D

24. D

25. A

Name _____ School _____

Math Superbowl - 2016

4th Grade Individual Part II

Answer Sheet

1. _____

2. _____

3. Greatest number of people that can be seated _____

Least number of people that can be seated _____

4. _____ dimes

5. _____ feet

ANSWER KEY

Math Superbowl - 2016 4th Grade Individual Part II Answer Sheet

1. 72

2. 6

3. Greatest number of people that can be seated 50

Least number of people that can be seated 20

4. 69 dimes

5. 10 feet

School _____

Math Superbowl - 2016
4th Grade Team Test
Answer Sheet

1. \$ _____

2. _____ different weights

3. _____ spheres

4. Ed _____ Rusty _____ Erin _____

5. Name Job Title Time Working at UCSB

Phil _____

Jayne _____

Ceci _____

Sarah _____

ANSWER KEY

Math Superbowl - 2016

4th Grade Team Test

Answer Sheet

1. \$ 200

2. 11 different weights

3. 3 spheres

4. Ed 17 Rusty 13 Erin 7

5. Name Job Title Time Working at UCSB

Phil Help Desk 11 years

Jayne Tech Teacher 3 years

Ceci Device Specialist 1 week

Sarah Network Admin. 2 years