

"Math Is Cool" Championships-1998-9

Sponsored by: Steven Gregg D.D.S.

4th Grade - April 16, 1999

Individual Contest

Record answers on score sheet.

Do not round any answers unless stated otherwise.

1. Evaluate: $\frac{7}{11} - \frac{2}{11} + \frac{1}{11}$
2. What number belongs in the blank? 36 times 2 = 9 times ____
3. Math Is Cool competitions have 1 proctor for every 8 students. If 200 students are present, how many proctors are needed?
4. Evaluate: 87,000-28,999
5. What is the probability of rolling an even number on a six sided die?
6. The Spokane Opera House can seat 1,200 people. The Lewis and Clark H.S. Auditorium can seat 900 people. How many more people can the opera house seat than the Lewis and Clark H.S. Auditorium?
7. Silas is taller than Krista. Jacob is the shortest. Erin is shorter than Krista. Lillie is the tallest. Who is the second tallest person?
8. What number fits all the clues?
 - It is between 5 and 14.
 - It is a two-digit number.
 - It is not a multiple of 4.
 - If 3 is subtracted from it, then the result is a multiple of 5.
9. Will the product of an even number and odd number always be even or odd?
(Answer even or odd)
10. Will the product of two odd numbers always be even or odd?
(Answer even or odd)
11. True or False: $8 + 3 + 4 + 11 + 10 = 38$

12. Amanda collects pennies. She has 8 quarts of pennies. How many gallons of pennies does she have?
13. What is the remainder when 15 is divided by 4?
14. DECA can send only 5 items in a box. If 27 items are ordered, how many boxes are needed to ship the order?
15. Find the smaller of two numbers whose sum is 6 and whose difference is 2.
16. If 1 decade is 10 years, then 50 decades is _____ years?
17. If today is Thursday, then 3 days before tomorrow is _____?
18. Tealah caught a fish 12 feet long. How many yards long is the fish?
19. Sean can do 120 math problems every two hours. How many math problems can he do in 15 minutes?
20. Evaluate: $222 \div 2$
21. How many seconds are in five minutes?
22. Eggs cost 12¢ a piece. How many eggs could you buy with one dollar?
23. If $A = 12$ and $B = 3$, Evaluate: $A+B+A+B$
24. What is the sum of the next two numbers in the sequence?
3, 5, 7, 9, _____, _____
25. Find the product of the first three prime numbers.
26. Stamps cost 33¢ a piece. If you had ten dollars, how many full stamps could you buy?
27. 72 is 25 more than _____?
28. What is the smallest whole number greater than 36 and divisible by 6?
29. What is the product of the number of days in a week and the number of months in a year?

30. The difference between two numbers is 40. The smallest of the two numbers is 35. What is the larger number?

Challenge Questions

31. What time would it be 2 hours and 22 minutes before 1:42 a.m.? (Answer must have a.m. or p.m.)
32. If exactly one statement is false, which is it?
Answer (*A*, *B*, or *C*)
- A. *A* & *C* are True B. *A* is False C. *B* is False
33. Evaluate: 218 times 781
34. Mike watches the weather carefully everyday. He noticed that it only rains once out of every 7 days the weather forecasters predict rain. If it rained 6 days, how many days did the weather forecasters predict it would rain?
35. A family of five eats 300 pancakes in 30 days. Each family member eats the same number of pancakes. How many pancakes does each person eat each day?
36. The sum of flea and fly's age is 25 days. What will the sum of their ages be in 17 days?
37. Claudine has 12 red socks, 5 purple socks, 5 white socks and 3 orange socks in a drawer. How many single socks must she draw at random to ensure a matching pair of socks?
38. A math team of 6 members wins first place at the "Math Is Cool" Championships. Each member shakes hands exactly once with every other member. How many handshakes occur?
39. Silas is three years older than Erin. Ten years ago, Silas was twice as old as Erin's age. What is Silas' age now?
40. Mr. Sutter has an interesting class. 20 of his students can speak English and 10 of his students can speak Spanish. 5 of his students can speak both Spanish and English. How many students are in his class?

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Team Multiple Choice Contest

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1. Every prime number between 100 and 1000 has a one's digit that is
- A) 1 B) prime C) Even D) odd E) Answer not given
-
2. Coach Carpenter set up a 100-meter racetrack in a field. She put a green flag at the starting line, a red flag at the finish line, and white markers every 10 meters between. How many white markers did she use?
- A) 7 B) 8 C) 9 D) 10 E) 11 F) Answer not given
-
3. Tiffany loves weird sandwiches. She will try any pair of ingredients, even though her friends think she is crazy! One day Tiffany gathered these sandwich fixings: avocado, tuna fish, peanut butter, cheese and bologna. How many different sandwiches can Tiffany create with pairs of ingredients?
- A) 10 B) 50 C) 5 D) 80 E) Answer not given
-
4. April is 4 years younger than her brother Sam. The sum of their ages is 16. Find April's age.
- A) 5 B) 6 C) 7 D) 8 E) 9 F) Answer not given
-
5. Bobby, Harry, Georgia, and Sally went to different sport camps to specialize in baseball, gymnastics, hockey, or swimming. No one went to the camp whose sport begins with the same letter as his or her name. Harry hates the water. Sally pitched in her camp's play-off game. Bobby only practices his sport outdoors in winter. Who does gymnastics?
- A) Bobby B) Harry C) Georgia D) Sally
-
6. What kind of solid am I? I have no vertices, no bases, and no flat surfaces?
- A) Pyramid B) Triangle C) Sphere D) Circle E) Answer not given
-
7. I am a three-digit odd number. The sum of all of my digits is 17. When you multiply my ones digit by three, you get the hundreds digit. What number am I?
- A) 155 B) 493 C) 931 D) 179 E) 693 F) Answer not given
-
8. Which money amount is the largest?
- A) 400 dollar bills B) 6000 dimes C) 50,000 pennies
-
9. $1.11 - .22 =$
- A) 21 B) 89 C) .89 D) 8.9 E) 3 F) Answer not given
-

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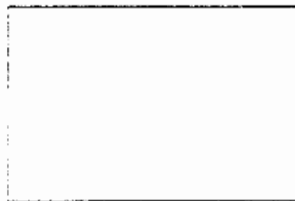
Team Contest

Record answers on score sheet.

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1. What is the mean of the following set of data? 7, 11, 15, 15
2. What is the sum of the first 4 multiples of 5?
3. What is the sum of 145, 2371, 2190 and 78?
4. The sum of three consecutive numbers 93. What is the largest of the three?
5. Evaluate: $\frac{1}{2} + \frac{1}{4}$
6. What is the next prime number after 23?
7. A turkey should be cooked 18 minutes for each pound it weighs. How long, in minutes, should a 9.5 pound turkey be cooked?
8. Jenny has three fewer dollars than Jina. Together they have 45 dollars. How many dollars does Jina have?
9. What is seven minus ten?
10. The area of the rectangle shown is 24. What is its perimeter?

6



Practice relay
Person#1
3 + 17

Practice relay
Person#2
TNYWG ÷ 2

Practice relay
Person#3
TNYWG + 5

Practice relay
Person#4
TNYWG ÷ 5

Relay #1
Person#1
36 - 7

Relay#1
Person#2
TNYWG + 16

Relay#1
Person#3
TNYWG ÷ 9

Relay#1
Person#4
TNYWG times 12

Relay#2
Person#1
12 times 12

Relay#2
Person#2
TNYWG + 6

Relay#2
Person#3
TNYWG ÷ 15

Relay#2
Person#4
TNYWG times 35

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Mental Math

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Person #1

1. What is the product of 3 and 5?
2. What is the sum of 22 and 19?
3. What is 35 divided by 5?
4. What is the perimeter of a square with side length 3?

Person #2

1. What is the product of 7 and 6 ?
2. What is the difference between 55 and 17?
3. What is 34 divided by 2?
4. How many minutes are in 180 seconds?

Person#3

1. What is the product of 12 and 4?
2. What is the difference between 43 and 22?
3. What is 42 divided by 3?
4. How many feet are in 6 yards?

Person#4

1. What is the product of 9 and 12?
2. What is the sum of 29 and 65?
3. What is the difference between 123 and 97?
4. How many dimes are in 3 dollars?

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College Knowledge Bowl Questions #1

1. How many sides does a dodecagon have?

Answer: 12

2. What is 12 times 31?

Answer: 372

3. How many feet are in 7 yards?

Answer: 21 (feet)

4. What is $3 \times 4 \times 3 \div 6$?

Answer: 6

5. How many ways can you arrange the letters in the word "moon"?

Answer: 12

6. What is the sum of the first 4 prime numbers?

Answer: 17

7. When picking one card from a standard deck of cards, what is the probability of drawing an ace?

Answer: $4/52$ or $1/13$ or $2/26$

Extra Question: What is the perimeter of a rhombus of side length 3?

Answer: 12

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College Knowledge Bowl Questions #2

1. What is $9 + 9 + 9 + 9 + 11 + 11 + 11$?

Answer: 69

2. 52 is 13 more than what number?

Answer: 39

3. What is the value, in dollars, of 2 quarters, 5 dimes, 3 nickels, and 7 pennies?

Answer: (\$) 1.22

4. What do I get if divide 17 by 17 and then multiply by 101?

Answer: 101

5. Mr. Shoemake gets a weekly allowance of 1 quarter, 8 dimes, 5 nickels and 10 pennies. If he spends 80 cents each week, how much money, in dollars, does he save each week.

Answer: 60 (cents)

6. How many ounces are in a pound?

Answer: 16 (ounces)

7. Evaluate: $3 + 5 + 19 + 18 + 1 + 2$

Answer: 48

Extra Question: Evaluate: $1104 \div 23 \times 0$

Answer: 0

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College Knowledge Bowl Questions #3

1. What is the probability of rolling an even number on an 8-sided die?

Answer: $\frac{1}{2}$ or $\frac{4}{8}$ or $\frac{2}{4}$

2. What is 15 squared?

Answer: 225

3. What is the square root of 49?

Answer: 7

4. What time is it 58 minutes before 6:10 P.M.?

Answer: 5:12 P.M.

5. $77 + 77 + 77 = 21 \times$ what number?

Answer: 11

6. If the wool from 1 sheep can make 4 sweaters, how many sheep are needed to make 100 sweaters?

Answer: 25

7. How many odd numbers are there between 20 and 30?

Answer: 5

Extra Question: What is the ones' digit of $(100 \times 9) + (20 \times 9) + (3 \times 9)$?

Answer: 7

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School Name _____ Team # _____

Proctor Name _____ Room # _____

Key

Full Name: _____

Individual Contest - Score Sheet

DO NOT WRITE IN SHADED REGIONS

1st Score

Out of 30

Answer		
1. 6/11		
2. 8		
3. 25(proctors)		
4. 58,001		
5. $\frac{1}{2}$ or $\frac{3}{6}$		
6. 300 (people)		
7. Silas		
8. 13		
9. Even		
10. Odd		
11. False		
12. 2 (gallons)		
13. 3		
14. 6 (boxes)		
15. 2		
16. 500 (years)		
17. Tuesday		
18. 4 (yards)		
19. 15 (math problems)		
20. 111		

Answer		
21. 300 (sec)		
22. 8 (eggs)		
23. 30		
24. 24		
25. 30		
26. 30 (stamps)		
27. 47		
28. 42		
29. 84		
30. 75		
31. 11:20p.m.		
32. B		
33. 170,258		
34. 42 (days)		
35. 2 (pancakes)		
36. 59		
37. 5 (socks)		
38. 15 (handshakes)		
39. 16 (yrs old)		
40. 25 (students)		

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Proctor Name _____ Room # _____

Key

Team Multiple Choice Contest-Score Sheet

Correct responses are worth 2 points, incorrect responses are worth -1 point and no response is 0 points.

1st Score

Out of 18

DO NOT WRITE IN SHADED REGIONS

Answer			
1.	D		
2.	C		
3.	A		
4.	B		
5.	B		
6.	C		
7.	F		
8.	B		
9.	C		

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School Name _____ Team # _____

Proctor Name _____ Room # _____

Key

Team Contest-Score Sheet

1 st Score

Out of 10

DO NOT WRITE IN SHADED REGIONS

Answer			
1.	12		
2.	50		
3.	4784		
4.	32		
5.	3/4		
6.	29		
7.	171 (minutes)		
8.	24 (dollars)		
9.	-3		
10.	20		

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Relay Contest - Score Sheet

Practice relay

3

Answer for relay #1

60

Answer for relay #2

350

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School Name _____ Team # _____

Proctor Name _____ Room # _____



Mental Math - Score Sheet

-
- A. 1. 15
2. 41
3. 7
4. 12

-
- B. 1. 42
2. 38
3. 17
4. 3 (minutes)

-
- C. 1. 48
2. 21
3. 14
4. 18(feet)

-
- D. 1. 108
2. 94
3. 26
4. 30 (dimes)