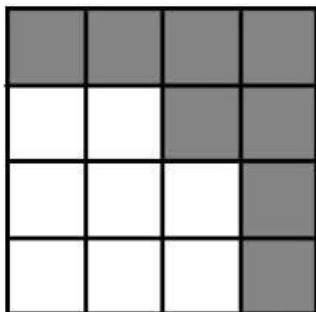


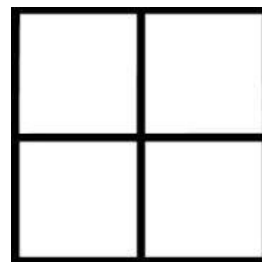
Grade 3-4 Individual Event (30 Minutes)

1) If Susie puts her pennies in piles of 4 she has 2 pennies left over. If she puts her pennies in piles of 5 she has 3 pennies left over. What is the least amount of pennies Susie can have?

2) This square is made of smaller squares. The area of the entire shape is 16 cm^2 . What is the perimeter of the shaded region?



3) How many rectangles of any size are in this shape?



4) Jimmy bought 10 lollipops at 25 cents each. If Jimmy sells all the lollipops for the same price, how much will he have to sell each lollipop for in order to make a \$1 profit?

5) Find the average of the numbers between 1 and 100 that end in 9.

6) Monika's resting heart rate is 50 beats per minute. For every minute she exercises, her heart rate increases 5 beats per minute. How long will it take her to reach a heart rate of 115 beats per minute?

7) The original price of a new sled is \$140.00. If the sled is marked down 15%, what is the new price of the sled?

8) $13 + 24 + 35 + 46 + 54 + 65 + 76 + 87 = ?$

9) Barb made 48 snowman cookies. She put black hats on half of the cookies, baseball caps on one third of the cookies, and the remaining cookies had no hat. How many cookies had no hat?

10) Jerri ate one half of Jenny's cake. Jessie ate one fourth as much as Jerri did. Janice ate twice as much as Jessie. What fraction of Jenny's cake has not been eaten?

11) What is the average of the first 5 even numbers greater than 20?

12)
$$\begin{array}{r} 1000 \\ \times 200 \\ \hline \end{array}$$

13) $486 \div 3^2 =$

14) $17 \times 58 =$

15) $8 + 4 \times 6 - 4 \div 4 =$

INDIVIDUAL ANSWER DOCUMENT

(Grades 3-4)

SCORE

Team # _____ School _____

Student Name _____

Student Number _____

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15. _____

Grade 3-4 Team Event (20 Minutes)

1) The snow was falling $1 \frac{1}{2}$ inches per hour. At this rate, how long would it take for 3 feet of snow to accumulate? *There are 12 inches in 1 foot.*

2) The perimeter of this large rectangle is 60 cm. What is the perimeter of 1 of the smaller squares?



3) The sums of each row and column are given. How much is 1 star worth?

★	😊	✘	32
✘	😊	✘	36
★	😊	★	28
16	60	20	

4) Mary worked at the ice cream shop for 12 weeks this summer and got paid the same amount each week. She made a total of \$2064. How much did she make each month? (*1 month = 4 weeks*)

5) A box of pencils can be divided equally among 3, 5, or 6 students. What is the least number of pencils in the box if there are more than 100?

6) Jane has a black, blue, red, and white shirt. She has black, blue, and red pants. How many shirt and pants outfits can she make if she cannot wear the same color shirt and pants together?

7) Leslie is baking cupcakes for the party. She bakes 15 per hour, but 2 get eaten every 15 minutes. How many hours will it take her to have a total of 210 cupcakes ready?

8) A spinner has 16 sections. Six spaces are red, five are green, and five are yellow. What is the probability that you will land on a red space? Reduce to lowest terms.

9) Molly bought a pair of shoes. The original price was \$60, but the shoes were on sale for 15% off. How much did she have to pay for the shoes?

10) The printer has to hand-set the page numbers for the book. It takes him one minute to set a single digit on each page. If he starts on page 1 at 8:00 and finishes at 11:36 that morning, how many pages are in the book?



TEAM ANSWER DOCUMENT

(Grades 3-4)

Team # _____ School _____

Student Names _____

Write answers clearly. Each correct answer is worth one point.

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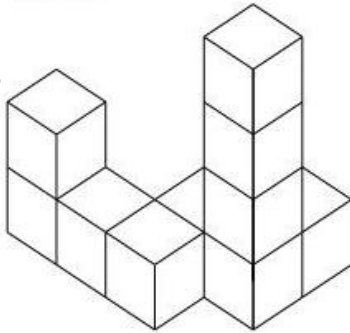
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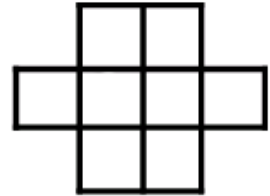
Grade 5-6 Individual Event (30 Minutes)

1) Connie and Tani had 60 jellybeans combined. Connie gave Tani 14 of her jellybeans, then they had the same number of jellybeans. How many jellybeans did Connie have to start with?

2) The cubes are glued together and dropped in a bucket of red paint. How many cubes have red paint on 5 sides?



3) How many rectangles of any size are in this shape?



4) Angie and Bobby have \$27 combined; Bobby and Carl have \$33 combined; and Angie and Carl have \$30 combined. How much money does Carl have?

5) On planet Zurux they use three coin types: axps, daxps, and raxps. Four axps and one daxp equals one raxp. Two daxps and one raxp equals 10 axps. How many axps would equal one raxp?

6) Find the sum of the least and greatest prime number less than 50.

7) There are 75 students in the fifth grade. 27 like pizza, 46 like hamburgers, and 13 like both. How many students in the fifth grade class like neither pizza nor hamburgers?

8) In this multiplication problem different letters stand for different digits. What is the value of DCC?

$$\begin{array}{r} BC \\ \times 9 \\ \hline DCC \end{array}$$

9) The sum of Sarah and Amy's ages is 39 years. Sarah's age is twice Amy's age. How old is Sarah?

10) $2 \times 3 + 4 \times 9 - 1 =$

11) $13 + 24 + 36 + 57 + 43 + 64 + 76 + 87 =$

12) What is the difference between 78% of 87 and 87% of 78?

13) What is one half of one third of 108?

14) What is the greatest common factor of 108 and 420?

15) If July 1 falls on Monday, what day of the week will Sept 2 fall on?

INDIVIDUAL ANSWER DOCUMENT

(Grades 5-6)

SCORE

Team # _____ School _____

Student Name _____

Student Number _____

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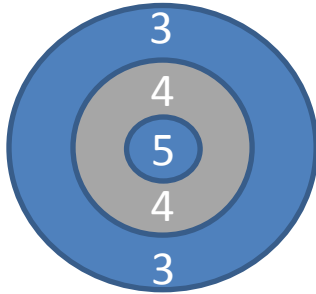
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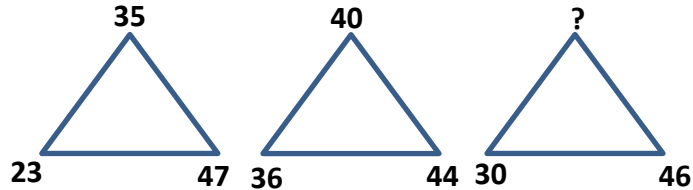
Grade 5-6 Team Event (20 Minutes)

1) What is the sum of the first 7 prime numbers greater than 20?

2) If 3 darts land on this dart board, how many different point totals are possible?

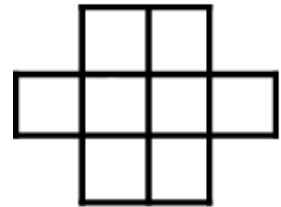


3) Study the first two triangles. Using this pattern what is the missing number on triangle 3?



4) Farmer Brown counted 19 animals in the farm yard. He counted legs and there were 62. If there were only cows and chickens, how many cows were out there?

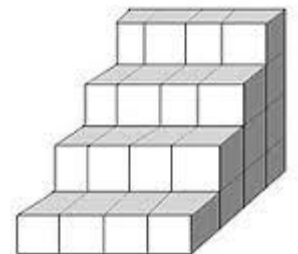
5) The area of this shape is 72 cm^2 . What is the perimeter?



6) A 900 seat stadium is divided into three sections. The first section has 350 seats. There are 150 more seats in section two than in section three. How many seats are in section 2?

7) The ratio of the length of Mary's throw to the length of Kyle's throw is 4:7. Mary's throw measures 16cm. How many more cm is Kyle's throw than Mary's?

8) How many blocks will it take to build a eight-step staircase?



9) A boy collected a total of 72 coins over three consecutive days. Each day he collected one more coin than the previous day. How many coins did he collect on the last day?

10) Tina starts with 10 cents and puts it in her piggy bank in January and then doubles it in February to put in 20 cents. If she keeps doubling the amount she puts in her bank each month, how much will she have in her bank by the end of December?



TEAM ANSWER DOCUMENT

(Grades 5-6)

Team # _____ School _____

Student Names _____

Write answers clearly. Each correct answer is worth one point.

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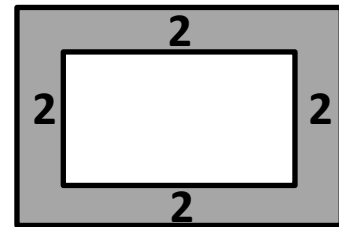
Grade 7-8 Individual Event (30 Minutes)

1) Kerry's average on 6 tests was 89. If he wants to make an average of 90, what must he score on the next test he takes?

2) In this magic square the sum of the numbers in each of row, column, and diagonal is the same. What number should be in the box marked X?

X		6	3
	4	15	
	14	1	
2	7		

3) A picture frame is 18 x 16 inches. There is a 2 inch mat around the picture. What is the area of the mat (shaded region)?



4) If a roller coaster can accommodate 75 people in 25 minutes, how many people could ride the roller coaster in 2 hours?

5) A set of 10 consecutive odd numbers has a sum of 220. What is the third number in the set?

6) What number multiplied by itself is equal to the product of 16 and 144?

7) A certain number is divisible by three and also by five. When the number is divided by 7, the remainder is 2. What is the smallest number between 200 and 300 that satisfies all these conditions?

8) Mike shipped a package that weighed W pounds, with W being a whole number. To ship this package it costs a total of \$1.75 for the first 5 pounds and .16 cents for each additional pound. If the package cost \$6.39 to ship, how many pounds did it weigh?

9) A dune buggy has a front wheel with a circumference of 3 ft. and a back wheel with a circumference of 5 ft. How many more turns will the front wheel make than the back wheel in 2 miles? (1 mile = 5,280 ft.)

10) The numbers given represent the sum of the objects in each row or column. Find the value of the middle row.

★	☾	★	★	37
★	✘	☾	☾	?
★	✘	★	✘	66
30	53	27	40	

11) Find the slope of the line segment joining the points (2, - 4) and (- 4, 2).

12) $4 + 9 \times 2 - 3 \times 2 =$

13) Find the difference between the sum of the three highest and the sum of the three lowest prime numbers between 0-100.

14) Nine people shake each other's hand only once at a meeting. How many handshakes take place altogether?

15) Suppose five days after the day before yesterday is Saturday. What day of the week will tomorrow be?

INDIVIDUAL ANSWER DOCUMENT

(Grades 7-8)

SCORE

Team # _____ School _____

Student Name _____

Student Number _____

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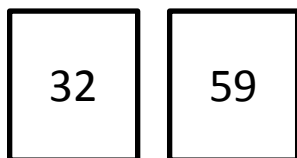
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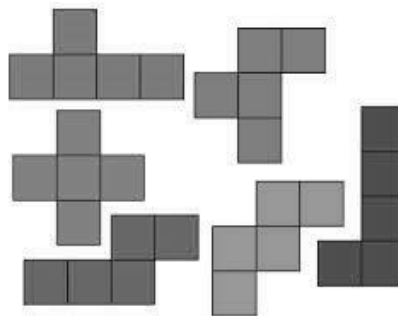
Grade 7-8 Team Event (20 Minutes)

1) What is 30% of 20% of 300?

2) Barry wrote a number on the back side of each of these 2 cards. The sums of the numbers on both sides of each of the two cards are equal. The two numbers on the hidden sides are prime numbers. What is the sum of those two hidden numbers?



3) If each tiny square has an area of 4cm^2 , what is the total combined perimeter of these shapes below?



4) The length of a rectangle is twice as long as it is wide. The perimeter is 108m. Find the area of the rectangle if the length and width are whole numbers?

5) There are 4 children in the Jones family. Amy is 10 inches shorter than John and he is 6 inches taller than Carmen. Wilson is 56 inches tall, which is 2 inches taller than Carmen. Find Amy's height.

6) ABCD stands for a four-digit positive number where each letter stands for a different digit. When the number ABCD is multiplied by four its digits appear in the reverse order. The first digit A is a quarter of the last digit D. The second digit B is one less than the first digit A. What number does ABCD represent?

7) Find the sum of the first 100 positive integers. $1 + 2 + 3 + \dots$

8) Fifty votes were cast in class election. Del got $\frac{1}{5}$ of the votes. Marion got as many votes as Kyle and Luke put together. Luke got $\frac{1}{3}$ as many votes as Kyle. How many votes did Marion receive?

9) The only way that 10 can be written as the sum of 4 different counting numbers is $1 + 2 + 3 + 4$. In how many different ways can 20 be written as the sum of 5 different counting numbers?

10) Alan bought a box of popcorn and two bars of chocolate for \$18. Jan bought 2 boxes of popcorn and a bar of chocolate for \$21. Find the cost of a bar of chocolate.



TEAM ANSWER DOCUMENT

(Grades 7-8)

Team # _____ School _____

Student Names _____

Write answers clearly. Each correct answer is worth one point.

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