## Magic Math Contest

1. 4041 What is $2020+2021$ ?
2. $1 \quad$ What is $\frac{4}{9} \times \frac{9}{4}$ ?
3. 2000 What is $200+200 \times 10-200$ ?
4. 81 What is the area of a square with side length 9 ?
5. 30 What is $4+6 \div 3-4 \times 10+128 \div 2$ ?
6. $\qquad$ What is the remainder when 1189 is divided by $23 ?$
7. $\quad 144$

What is the perimeter of a regular hexagon with side length 24 ?
8. 1234

What is $234 \times 1234-233 \times 1234$ ?
9. 3

Joe has 2 coupons. The first coupon gives 20 percent off the price. The second coupon gives 15 dollars off the price. I am buying a skateboard for 60 dollars. How much more money does coupon 2 save than coupon 1?
10. $\quad 30$

Find the value of :

$$
\frac{6 \times 5 \times 4 \times 3 \times 2 \times 1}{4 \times 3 \times 2 \times 1}
$$

11. $\quad 12$

There is a rectangle with side lengths 4 and 6 . What is the area of the triangle inside it if it has the same base and height as the rectangle? (The diagram is below)


6
12. 40 In a multiple choice question, 3 people put A as the answer, 10 put $\mathrm{B}, 7$ put C , and 5 put D. If all people doing the test answered the problem, what percent of people put $B$ as the answer.
13. 2

What is the surface area divided by the volume of a cube with side length $3 ?$
14. $\qquad$ $15 \times \mathrm{a}-5 \times \mathrm{b}=330-5 \times \mathrm{b}$. What is a ?
15. $\qquad$ Mr. Bob has 2 fields of corn. Each of the fields are circles. If the second field's radius is 4 times as much as the first field's, what is the area of the second field divided by the area of the first field?
16. $\qquad$ How many numbers between 99 and 900 are divisible by $4 ?$
17. 10 Joe is going to visit his grandma! Her house is 600 miles away. He starts driving with a full gas tank. He refills 2 times on the way when it gets empty. When he arrives at his grandmother's house, his tank is once again empty. If his tank of fuel can hold 20 gallons of fuel. How many miles can he go on each gallon of fuel?
18. 26

A trapezoid has 2 right angles and side lengths of $4,5,5$, and 8 . The picture is shown below. What is the area of the trapezoid?

19. $\qquad$ 225

What is this sum of these consecutive odd integers : $1+3+5+7+9+\ldots+$ 29 ?
20. $\quad 2$

John adds up all the even integers from 2 to 500. Julie adds up all the integers from 1 to 250. What is John's answer divided by Julie's answer.

