Student name: ______ Room number: _____

#	Answer	Points $(0/1)$
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Total:

Problems

- 1. What is 5 + 4 + 3 + 2 + 1 15?
- 2. What is 111×22 ?
- 3. A bag of popcorn has 2 pieces of caramel popcorn for every cheese popcorn. If there are 10 pieces of cheese popcorn in the bag, how many total pieces of popcorn are there in the bag?
- 4. How many lines of symmetry does the star below have?



- 5. Lincoln High School opened in September of 1907. How many January 1sts have passed since Lincoln opened?
- 6. What is the next number in the sequence 25, 20, 15, 10?
- 7. Two squares are drawn. The first square has a side length of $4 \, cm$, and the second square has a side length of $8 \, cm$. How much larger is the area of the second square than the first? Express your answer in cm^2 .
- 8. If you multiply a 2-digit number and a 1-digit number, what is the greatest number of digits the resulting product can have?
- 9. A piece of paper is folded in half 4 times in a row. How many sections are there when you unfold the paper?
- 10. John has a glass that is full of water. He pours half of the water into another glass, and then a third of the water now in the second glass back into the first. What fraction of the first glass is now full of water?
- 11. Kieran currently has 99% of his computer battery. Every hour, the battery loses a third of its charge (for example, a battery at 18% is at 12% after one hour, and at 8% the next). After 2 hours, what percentage of his computer battery does he have?
- 12. Wilbert accidentally spilled a drink on his math homework, and a number on the left side of his equation got erased, leaving $\times 8 + 4 = 4 \times 5$. What number should be in the blank spot?
- 13. Sam drives at a speed of 20 miles per hour for 2.5 hours and then 30 miles per hour for the next 30 minutes. How many miles has he driven?
- 14. Ms. Hashemi rolls a 4-sided die and a 5-sided die. What is the probability that both dice show the same number?
- 15. How many ways can you make 87¢ if you only have pennies and quarters?
- 16. Grace is 4 years older than Iris. If Grace was 2 times older than Iris 5 years ago, what is the sum of their ages?
- 17. A number is considered a palindrome if it is the same number backwards and forwards. For example, the number 404 is a palindrome because it is also 404 when written backwards. How many 2-digit and 1-digit palindromes are there?

Calculus Tests

18. Below are the test scores for Ms. Hashemi's Calculus class. What is the average score?

- 19. On a sunny day in Seattle, a tall redwood tree casts a shadow that is 48 feet long. Next to it, a 3-inch dandelion casts a shadow that is 2-inches long. How tall is the redwood tree?
- 20. How many ways are there to rearrange Andrew, Arman, Arshaan, and Aiden in a row if Arman and Arshaan refuse to sit next to each other?
- 21. A squirrel climbs a 30-meter tree at 2 meters per second, then climbs down the same tree at 3 meters per second. What was the squirrel's average speed in meters per second as it went up and down the tree? Write the answer as a reduced common fraction.
- 22. A cabbage plant is growing. Each day, there is a 1/3 chance that it creates a cabbage. What is the probability that at least one cabbage has been created after 3 days?
- 23. A car starts driving from City A to City B in a straight line on Saturday. Each day, the car drives twice as far as it did the previous day, until it reaches City B. The cities are 200 miles apart and the car drives 3 miles on Saturday. On what day of the week will it arrive in City B?
- 24. On Grace's farm, $\frac{1}{3}$ of the animals are chickens. On Iris's farm, $\frac{1}{2}$ of the animals are chickens. Iris's farm has 5 more chickens than Grace's farm, and both farms have the same number of animals. How many animals are on Grace's farm?
- 25. Alex is writing down a list of numbers. Each number is equal to the previous number in the list, plus twice the number of numbers in the list so far, plus 2. Additionally, the second number in the list is 4. What is the 4th number in the list?

Answers

- 1. 0
- $2.\ 2442$
- 3. 30
- 4. 5
- $5.\ 118$
- 6. 5
- 7. 48
- 8. 3
- 9.16
- 10. $\frac{2}{3}$
- 11. 44% (percent sign not required)
- 12. 2
- 13. 65
- 14. $\frac{1}{5}$
- 15. 4
- $16.\ 22$
- 17. 18
- 18. 85
- $19.\ 72$
- $20.\ 12$
- 21. $\frac{12}{5}$
- 22. $\frac{19}{27}$
- 23. Friday
- 24. 30
- $25.\ 18$