

Name: _____

Team #: _____

School: _____

Challenge Test	Answers	Score
1. There are 2 squares, one with a side length twice the other's side length. What is the ratio of the larger square's area to the smaller square's area?	4:1 Or 4	1 1
2. A pentagon has 4 angles that sum to 400° , what is the measure in degrees of the last angle?	140°	1 1
3. Express $\frac{19}{25}$ as a decimal.	0.76	1 1
4. Express $0.\overline{654}$ as a fraction.	$\frac{218}{333}$	1 1
5. Evaluate $2 + 6 + 9 \times 9 - 8 + 16$	97	1 1
6. Twice one number is half the second number and quadruple the sum of the first number and the third number. What is the second number divided by the third number?	-8	1 1
7. Vladimir runs at 10MPH. If The Cove is 7 miles away, how many minutes will it take him to get there?	42	1 1
8. A ferry transports cars from an island to shore. Initially there is one car on shore. The ferry arrives at the shore every 3 hours with 5 cars. How many cars will be on shore after 20 hours?	31	1 1
9. Express 3.56 as a mixed number.	$3\frac{14}{25}$	1 1
10. For how many integers (don't forget about the negatives) is $\frac{k+8}{k+1}$ an integer?	4	1 1
11. An XBOX has an original price of \$300. There is a 25% off sale for XBOX's at the Electron store. At the Positron store, however, XBOX's were given a 10% discount off the original price and were then put under an additional 15% discount. What is the difference in XBOX prices between the stores?	\$4.50	1 1
12. Evaluate $\frac{1}{2} + \frac{1}{3} + \frac{1}{5} + \frac{1}{7}$	$\frac{247}{210}$	1 1
13. It takes Jasmine 66 minutes to type a 900 word essay. At this rate, how many minutes will it take her to type a 2100 word essay?	154	1 1
14. Johnny can fix an engine in 3 hours, and his brother can fix an engine in 5 hours. If they work together, how many minutes will it take to fix 2 engines?	225	1 1
15. A substance T is added to starch. When mixed with starch, substance T will break down into water and oxygen in a 3:1 ratio. The final mixture has 66% water. What is the percentage of oxygen in this mixture, expressed as a decimal?	22%	1 1
16. Evaluate $4\frac{7}{16} + 5\frac{7}{12}$	$\frac{481}{48}$	1 1
17. A book is tossed by a careless owner onto a flat surface, where it opens to a random page. If the product of the page numbers on the left and right is 156, what is the larger of the numbers?	13	1 1
18. What is the unit's digit of 3^{18} ?	9	1 1
19. What is the sum of the first 100 positive odd numbers?	10000	1 1
20. How many 3-digit numbers have the digits in increasing order? For example, include 123 but not 163 or even 144.	84	1 1
Total Score:		