

Division N

	Answers	Score
1. What is the value of $5 + 8 \times 3 + 1 + \sqrt{9}$	33	
2. What is the area of a circle with diameter 10? Express our answer in term of $\pi$ .	$25\pi$	
3. Find the missing factor: $20 \times 30 \times 40 = 2 \times 4 \times 6 \times \underline{\hspace{1cm}}$	500	
4. What fraction of an hour passed today between 11:09 am and 11:41 am?	$\frac{8}{15}$	
5. Adrian is traveling on I-405 at a rate of 55 miles per hour. At this rate, how many hours will it take for Adrian to travel 330 miles?	6 [hours]	
6. What is the next number in the following series? 3, 9, 21, 45, ____	93	
7. What is the probability to draw a 2 of hearts or an ace from a standard deck of cards?	$\frac{5}{52}$	
8. How many perfect squares are between 20 and 145?	8	
9. Evaluate: $\frac{2}{3} \times \frac{4}{5} \times \frac{6}{7} \times \frac{7}{6} \times \frac{5}{4} \times \frac{2}{3}$	1	
10. Find the smallest of five consecutive numbers whose sum is 100.	18	
11. If 3 of every 150 elementary students play chess, then ____% of all elementary students play chess.	2	
12. What is the largest odd factor of 81?	81	
13. Evaluate: $\left(\frac{3}{5}\right)^3$	$\frac{27}{125}$	

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14. What is the average of all the odd numbers between 2 and 10?	6	
15. For each dollar Brandt earns, he puts a quarter and a penny in the bank. If he has earned \$83, how much money, in dollars, has he put in the bank?	[\$]21.58	
16. Twice my favorite number is one-hundred-two less than five times my favorite number. What is my favorite number?	34	
17. What is the mean of $\frac{2}{3}$ and $\frac{4}{9}$ ?	$\frac{5}{9}$	
18. Evaluate: $(11 + 22 + 33) \div (1 + 2 + 3)$	11	
19. Evaluate: $3\frac{3}{11} \times 7\frac{1}{3}$	24	
20. 40 yards of fabric was used to make 6 Halloween capes. How many yards are used to make 1 cape?	$6\frac{2}{3}$ [yards]	
21. 5.5 gallons of orange juice was poured equally into 80 cups. Find the volume in ounces of orange juice in each cup. 1 gallon = 128 oz	8.8 [oz]	
22. Find the probability of rolling a sum of 1 or a sum of 13 with two standard dice (numbered 1 – 6).	0	
23. Find the least common multiple of 6, 7, and 8.	168	
24. What is the sum of 60% of 75 and 75% of 60?	90	

25.	Bharat saved \$280. Koa saved \$120 more than Bharat. What percentage of Koa's money must be given to Bharat so each of them has the same amount of money?	15[%]	
26.	The ratio of red cars to black cars to white cars on a car lot was 8 : 6 : 12. If there were 182 cars altogether, how many black cars were there?	42	
27.	Adding 38 to a number increases it by 5% of its original value. What is the original number?	7.5 or 7½	
28.	It takes 3 teacher 3 hours to write 36 test problems. Assuming the 3 teachers work at the same average rate, what is the number of minutes it would take for 1 teacher to write 6 test problems?	90 [min]	
29.	Ben drives from Alpvile to Bizzburg at 70 miles per hour, then drives back along the same route at 20 miles per hour. As a mixed number, what was his average speed, in miles per hour?	31 <sup>1</sup> / <sub>9</sub> [mph]	
30.	What is the product of 0.5% of 500 and 5% of 50?	6.25	
31.	Evaluate: $-3 - 12(-5 + 3)$	-2	
32.	What is the midway between $2\frac{1}{2}$ and $-1\frac{1}{2}$ .	0.5	
33.	Manasvi's guestroom is 15 ft long and 12 ft wide. How long is the diagonal of the guestroom? Express your answer in decimal rounded to the nearest hundredth.	19.21 [ft]	
34.	Evaluate: $(3x \cdot 2x)^2$	$36x^4$	
<b>TOTAL SCORE</b>			

## MATH CHALLENGE TOURNAMENT 2015

### GRADE 6

### Sprint Math

Sponsored by Ellipsis Academy ®

FINAL SCORE:

**KEY**

Name: \_\_\_\_\_

Team#: \_\_\_\_\_

- Write your answers in this test booklet.
- Unit is not necessary. If you choose to label your answer, please make sure you write the correct unit. A correct answer with incorrect unit will be marked as an incorrect answer.

**Correct answer: 1 point**

**Blank answer: 0 point**

**Incorrect answer: 0 point.**