



First Name: _____ Last Name: _____ Grade: _____

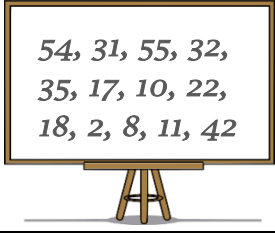
Teacher: _____ Parent's email: _____

Number Clues

This Math Challenge presents “Who Am I” puzzles and Number puzzles. The puzzles give clues about a number, and we have to figure out what the number is. These problems are great to strengthen our number sense, our logic and critical thinking. Enjoy.

Kinder & First Grade: solve at least 3 problems.
Second & Third Grade: solve at least 7 problems.
Fourth Grade and above: solve at least 12 problems.

		<i>Answer</i>
1.	One-digit number a. I am a one-digit odd number. I am greater than the sum of 3 and 4. Who am I? b. I am the biggest one-digit even number. I look like two zeroes that have been attached together. Who am I?	a. 9 b. 8
2.	Two-digit number a. I am greater than 10 but less than 13. I am an even number. Who am I? b. I am greater than 35 but less than 55. I am an even number. My ones digit is the same as my tens digit. Who am I?	a. 12 b. 44
3.	Two-digit number a. I am an even two-digit number. The sum of all my digits is 3. The order of my digits, from left to right, goes from smallest to greatest. Who am I? b. I am less than the value of 8 tens, but I am more than the value of 5 tens. I am an odd number, and my digits are different. If you add my digits together, you get 10. Who am I?	a. 12 b. 73
4.	Two-digit number I am a two-digit number exactly half-way between 10 and 20. Who am I?	15
5.	Three-digit number	357
6.	Three-digit numbers	a. 648 b. 119 c. 703
7.	Three-digit number	504
8.	Find the two mystery numbers below. Each mystery number is a two-digit whole number between 1 and 50. a) First clue: 1, 6, 11, 16, 21, 26, 31, 36, 41, 46 Second clue: 2, 10, 18, 26, 34, 42 The number that works with two clues is 26. b) First clue: 2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35, 38, 41, 44, 47 Second clue: 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49 Third clue: 4, 9, 14, 19, 24, 29, 34, 39, 44, 49. The number that works with all three clues is 29.	a. 26 b. 29

<p>9. Who am I?</p> <ul style="list-style-type: none"> I am an even 5-digit number. My tens digit is $\frac{2}{3}$ of 12. My hundreds digit is the number of sides in a hexagon. My ten-thousands digit is an even prime number. All my digits are even and different. If you triple me, I'll be larger than 70,000. 	<p>24680</p>
<p>10. Maya: 54, 31, 55, 32, 35, 17, 10, 22, 18, 2, 8, 11, 42 Audrey: 54, 31, 55, 32, 35, 17, 10, 22, 18, 2, 8, 11, 42 Quentin: 54, 31, 55, 32, 35, 17, 10, 22, 18, 2, 8, 11, 42 Maria: 54, 31, 55, 32, 35, 17, 10, 22, 18, 2, 8, 11, 42 Mrs. Smith: 54, 31, 55, 32, 35, 17, 10, 22, 18, 2, 8, 11, 42 → 22</p>	 <p>22</p>
<p>11. What is the number?</p>	<p>335973</p>
<p>12. To get the greatest possible difference, we will want to find the prime number closest to 100 and subtract the prime number closest to 50. $97 - 53 = 44$. Since Mr. Clark is 10 years older than this number, his age is $44 + 10 = 54$.</p>	<p>54 [years old]</p>
<p>13. We can list numbers between 60 and 100 with the sum of its digits equal to 12: 66, 75, 84, 93. Then eliminate numbers by using the rest of the clues.</p>	<p>84</p>
<p>14.</p>	<p>88</p>
<p>15.</p>	<p>400,004</p>
<p>16. Let's find the factors of these numbers: $84 = 1 \times 84, 2 \times 42, 3 \times 28, 4 \times 21, 6 \times 14, 7 \times 12$ $56 = 1 \times 56, 2 \times 28, 4 \times 14, 7 \times 8$ The greatest common factor is 28. So, Celeste can make 28 bags in each of them she'll have 3 lollipops and 2 candy bars.</p>	<p>28</p>
<p>17. The least pair of consecutive primes with a difference of 6 is the pair 23 and 29. Their product is 667, so Mihika's locker number must be 667.</p>	<p>667</p>
<p>18. There are 138 numbers have the digit 3 in them, and there are 57 numbers have the digit 8 in them. The positive difference between M and N = $138 - 57 = 81$</p>	<p>81</p>

Solution is available on May 5, 2023
www.mathinaction.org