

Place Value: Tens & Ones

Number & Operations · Grade 2

Score: _____ / 15

★ Hard · 15 Questions

Solve each problem. Show your work in the space provided. Write your answer on the line.

- Write 47 in two different expanded forms using tens and ones.

Answer: _____

- I am a 2-digit number. My tens digit is 3 more than my ones digit. My digits sum to 11. What am I?

Answer: _____

3. How many 2-digit numbers have the same tens digit and ones digit?

Answer: _____

4. What is the largest 2-digit number you can make with digits 3 and 8?

Answer: _____

5. What is the smallest 2-digit number you can make with digits 5 and 1?

Answer: _____

6. The tens digit of a number is twice its ones digit. The number is less than 50. What numbers are possible?

Answer: _____

7. If you swap the digits of 36, what is the difference between the original and the new number?

Answer: _____

8. A number rounds to 50 when rounded to the nearest ten. What are the possible values?

Answer: _____

9. There are 48 apples in a box. After adding some more, there are 7 tens and 2 ones. How many apples were added?

Answer: _____

10. A 2-digit number has a tens digit 4 less than its ones digit. What is the largest such number?

Answer: _____

11. What 2-digit number becomes 10 times smaller when you remove its tens digit?

Answer: _____

- 12.** True or false: every 2-digit number with a 0 in the ones place is a multiple of 10.

Answer: _____

- 13.** The sum of a 2-digit number and the number with its digits reversed is 121. What could the original number be?

Answer: _____

- 14.** I add 10 to a number three times and get 81. What was the starting number?

Answer: _____

- 15.** How many 2-digit numbers have a tens digit greater than their ones digit?

Answer: _____

Answer Key

Place Value: Tens & Ones — Hard

1. **40 + 7 and 30 + 17**

Standard: 4 tens + 7 ones = $40 + 7$. Regroup one ten: 3 tens + 17 ones = $30 + 17$.

2. **74**

Let ones = x , tens = $x+3$. $(x+3)+x=11 \rightarrow 2x=8 \rightarrow x=4$. Number = 74.

3. **9**

Numbers: 11, 22, 33, 44, 55, 66, 77, 88, 99. That is 9 numbers.

4. **83**

Put the larger digit (8) in the tens place: 83.

5. **15**

Put the smaller digit (1) in the tens place: 15.

6. **21, 42**

Ones=1, tens=2 $\rightarrow$ 21. Ones=2, tens=4 $\rightarrow$ 42. Ones=3, tens=6 $\rightarrow$ 63 > 50. So: 21 and 42.

7. **27**

Original = 36, swapped = 63. Difference = $63 - 36 = 27$.

8. **45, 46, 47, 48, 49, 50, 51, 52, 53, 54**

Numbers from 45 to 54 round to 50 (45 rounds up since ones ≥ 5 ; 54 rounds down).

9. **24**

7 tens 2 ones = 72. Added = $72 - 48 = 24$.

10. **59**

Ones can be at most 9, tens = $9-4 = 5$. Largest number = 59.

11. Any multiple of 10 from 10–90 (e.g. 30 → 3)

A number like 30 has tens digit 3 and ones digit 0. Removing the tens gives 3. $30 \div 10 = 3$. Any multiple of 10 works.

12. True

A 0 in the ones place means the number = tens $\times$ 10, which is always a multiple of 10.

13. Not possible for a 2-digit number (max sum = $99+99 = 198$, but $10a+b + 10b+a = 11(a+b)$; $11(a+b)=121 \rightarrow a+b=11$, e.g. 29, 38, 47, 56, 65, 74, 83, 92)

$11(a+b)=121 \rightarrow a+b=11$. Pairs: (2,9),(3,8),(4,7),(5,6). Numbers: 29,38,47,56,65,74,83,92.

14. 51

Adding 10 three times = +30. Starting number = $81 - 30 = 51$.

15. 45

For each tens digit t (1–9), ones digit d can be 0 to $t-1$: that is t choices. Sum = $1+2+\dots+9 = 45$.
