Merit Tutoring

Year 4 Mathematics

Place Value Workshop

Worksheet 1: Whole Numbers & Powers of 10

Name: _____ **Date:** _____

Section 1: Fluency - Value of Digits

Identify the value of the underlined digit in each number.

1. What is the value of the digit 7 in the number 47,230?

Answer: _____

2. What is the value of the digit 5 in the number 65,481?

Answer: _____

3. In the number 82,916, what is the value of the digit 9?

Answer: _____

4. What is the value of the digit 3 in the number 23,754?

Answer: _____

5. In the number 91,042, what is the value of the digit 1?

Answer: _____

6. What is the value of the digit 8 in the number 38,526?

Answer: _____

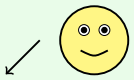
7. Look at this place value chart. Write the number shown:

TTh	Th	H	T	O
5	4	3	2	1

Answer: _____

8. Which digit is in the thousands place in the number 76,398?

Answer: _____



Place Value Pro!

Why did the number 7,000 go to the gym?

Because it wanted to be in great shape... in the thousands place!

Section 2: Reasoning - Multiplying & Dividing by 10 and 100

Show how digits move when we multiply or divide by powers of 10.

9. Calculate:

$$56 \times 10 = ?$$

Answer: _____

10. Calculate:

$$430 \div 10 = ?$$

Answer: _____

11. What is

$$72 \times 100$$

?

Answer: _____

12. Calculate:

$$8{,}500 \div 100 = ?$$

Answer: _____

13. Look at the place value slider below. When we multiply 34 by 10, the digits shift left:

Start: 34 $\xrightarrow{\times 10}$ Result: 340

Now you try:

$$145 \times 10 = ?$$

Answer: _____

14. When we divide 6,200 by 100, the digits shift right. What is the answer?

Answer: _____

15. Fill in the blank:

$$? \times 10 = 870$$

Answer: _____

16. Complete:

$$4{,}000 \div 100 = ?$$

Answer: _____

Powers of 10 Champion!

What did 10 say to 100?

"You're just me with a bigger place value!"

Section 3: Problem Solving - Real World Applications

Solve word problems using place value and powers of 10.

17. A school buys 100 packs of pencils. Each pack contains 45 pencils. How many pencils does the school have in total?

Answer: _____

18. A library has 3,600 books arranged equally on 10 shelves. How many books are on each shelf?

Answer: _____

19. Emma collected 82 shells at the beach. Her friend collected 10 times as many. How many shells did her friend collect?

Answer: _____

20. A farmer packed 5,400 eggs into boxes of 100. How many boxes did he use?

Answer: _____

21. The population of a small town is 24,567 people. What is the value of the digit in the hundreds place?

Answer: _____

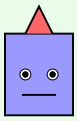
22. A toy store sold 10 boxes of building blocks. Each box cost $38. What

was the total cost?

Answer: _____

23. A number has 6 in the ten thousands place, 3 in the thousands place, 0 in the hundreds place, 9 in the tens place, and 2 in the ones place. What is the number?

Answer: _____



Problem Solving Star!

Why did the number 54,321 feel so organized?
Because all its digits were in the right place!

Well done! You've completed Worksheet 1!

Answer Key

Worksheet 1: Whole Numbers & Powers of 10

Section 1: Fluency - Value of Digits

1. Answer: **7,000** (or seven thousand)
2. Answer: **5,000** (or five thousand)
3. Answer: **900** (or nine hundred)
4. Answer: **20,000** (or twenty thousand)
5. Answer: **1,000** (or one thousand)
6. Answer: **8,000** (or eight thousand)
7. Answer: **54,321**
8. Answer: **6** (the digit in the thousands place)

Section 2: Reasoning - Multiplying & Dividing by 10 and 100

9. Answer: **560**
10. Answer: **43**
11. Answer: **7,200**
12. Answer: **85**
13. Answer: **1,450**
14. Answer: **62**
15. Answer: **87**
16. Answer: **40**

Section 3: Problem Solving - Real World Applications

17. Answer: **4,500 pencils**

Working:

$$45 \times 100 = 4{,}500$$

18. Answer: **360 books**

Working:

$$3{,}600 \div 10 = 360$$

19. Answer: **820 shells**

Working:

$$82 \times 10 = 820$$

20. Answer: **54 boxes**

Working:

$$5{,}400 \div 100 = 54$$

21. Answer: **500** (or five hundred)

22. Answer: **$380**

Working:

$$38 \times 10 = 380$$

23. Answer: **63,092**

Year 4 Mathematics

Place Value Workshop

Worksheet 2: Decimals - Tenths & Hundredths

Name: _____ **Date:** _____

Section 1: Fluency - Fraction to Decimal Conversion

Convert fractions to decimals and identify place values.

1. Convert the fraction to a decimal:

$$\frac{4}{10} = ?$$

Answer: _____

2. Convert the fraction to a decimal:

$$\frac{75}{100} = ?$$

Answer: _____

3. Write

$$\frac{9}{10}$$

as a decimal.

Answer: _____

4. Convert:

$$\frac{23}{100} = ?$$

Answer: _____

5. What decimal is the same as

$$\frac{50}{100}$$

?

Answer: _____

6. Write the decimal for six tenths.

Answer: _____

7. Look at this place value chart:

T	O	·	t	h
2	3	·	4	7

What number is shown?

Answer: _____

8. In the number 5.68, what is the value of the digit 6?

Answer: _____

Decimal Dynamo!

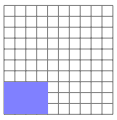
Why was 0.1 so lonely?

Because it was only a ”tenth” of a whole friend!

Section 2: Visual Modeling - Hundredths Grids

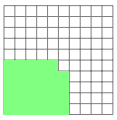
Look at the shaded grids and write the decimal they represent.

9. Look at this hundredths grid. Write the decimal for the shaded part:



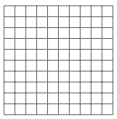
Answer: _____

10. This grid shows a different decimal. What is it?



Answer: _____

11. Shade 0.67 on this hundredths grid:



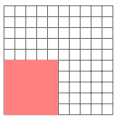
12. What fraction of 100 is represented by 0.35?

Answer: _____

13. If 0.82 of a grid is shaded, how many squares out of 100 are shaded?

Answer: _____

14. Look at this grid showing 0.5:



What is another way to write 0.5 as a fraction?

Answer: _____

15. A grid has 100 squares. If 8 squares are shaded, what decimal does this represent?

Answer: _____

Hundredths Hero!

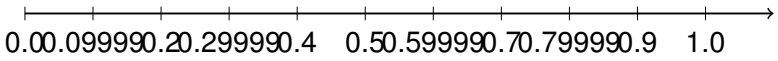
Why did the hundredths grid go to school?

To learn how to be more "square" with decimals!

Section 3: Challenge - Number Lines

Use number lines to locate and identify decimal numbers.

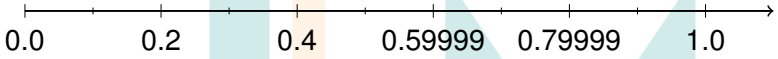
16. Look at this number line. Mark where 0.3 should be placed:



17. On the number line above, what decimal is at the mark 7?

Answer: _____

18. This number line shows from 0 to 1. Where would 0.85 be located?



Answer: _____

19. A number is halfway between 0.2 and 0.3. What is the number?

Answer: _____

20. Which is greater: 0.45 or 0.54?

Answer: _____

21. Place these decimals in order from smallest to largest: 0.7, 0.07, 0.77

Answer: _____

22. A runner completes a race in 12.45 seconds. What is the value of the digit 4?

Answer: _____

23. Sarah has 0.6 of a pizza left. Tom has 0.65 of a pizza. Who has more pizza?

Answer: _____

Number Line Navigator!

Why did 0.5 sit in the middle of the number line?
Because it wanted to be fair and "halfway" to everyone!

Fantastic work! You've mastered decimals!

Answer Key

Worksheet 2: Decimals - Tenths & Hundredths

Section 1: Fluency - Fraction to Decimal Conversion

1. Answer: **0.4**
2. Answer: **0.75**
3. Answer: **0.9**
4. Answer: **0.23**
5. Answer: **0.5** or **0.50**
6. Answer: **0.6**
7. Answer: **23.47**
8. Answer: **0.6** or **six tenths** or $\frac{6}{10}$

Section 2: Visual Modeling - Hundredths Grids

9. Answer: **0.3** or **0.30** (30 squares out of 100 are shaded)
10. Answer: **0.45** (45 squares out of 100 are shaded)
11. Answer: **Students should shade 67 squares out of 100**
12. Answer: $\frac{35}{100}$

13. Answer: **82 squares**
14. Answer: $\frac{50}{100}$ or $\frac{5}{10}$

or

$$\frac{1}{2}$$

15. Answer: **0.08**

Section 3: Challenge - Number Lines

16. Answer: **Students should mark at the 3rd line (at position 0.3)**
17. Answer: **0.7**
18. Answer: **Between 0.8 and 1.0, closer to the 9th small mark**
19. Answer: **0.25**
20. Answer: **0.54** (0.54 is greater than 0.45)
21. Answer: **0.07, 0.7, 0.77**
22. Answer: **0.4** or **four tenths** or

$$\frac{4}{10}$$

23. Answer: **Tom** (0.65 is greater than 0.6 or 0.60)

Congratulations!

You are now a Place Value and Decimal Expert!

Keep practicing and you'll master all of Year 4 Maths!

