

## Place Value and Decimals: math practice, Grade 5 – download the PDF

22 problems graded by difficulty (★ easy, ★★ medium, ★★★ hard). Try first, without looking at the solutions!

### 1 Value of each digit

★ ★ ★

In the number **482.317**, give the value of (a) the 8, (b) the 3, (c) the 1, (d) the 7.

### 2 Ten times and one tenth

★ ★ ★

Fill in each blank.

a.  $7 = 10 \times \underline{\hspace{1cm}}$

b. **0.08** is 10 times as much as  $\underline{\hspace{1cm}}$

c. **0.4** is  $\frac{1}{10}$  of  $\underline{\hspace{1cm}}$

d. **600** is  $\frac{1}{10}$  of  $\underline{\hspace{1cm}}$

### 3 Powers of ten

★ ★ ★

(a) Write each number as a power of 10: **100**, **100,000**, **10**.

(b) Write in standard form:  $10^4$  and  $10^6$ .

#### 4 Words to numbers



Write each number in standard form.

- a. nine and four hundred twenty-seven thousandths
- b. sixty-three hundredths
- c. five thousandths
- d. twelve and eight tenths

#### 5 Numbers to words



Write each number in words: (a) **30.205** (b) **0.09** (c) **7.018**.

#### 6 Greater, less or equal



Write  $<$ ,  $>$  or  $=$  in each blank.

- a. **0.8** \_\_\_\_ **0.79**
- b. **3.45** \_\_\_\_ **3.450**
- c. **0.099** \_\_\_\_ **0.1**
- d. **12.06** \_\_\_\_ **12.6**

#### 7 Round to the nearest tenth



Round each number to the nearest tenth: **6.37**, **0.82**, **2.04**, **9.96**.

## 8 Expanded form



- a. Write **73.406** in expanded form.
- b. Write  $2 \times 100 + 5 \times 0.1 + 9 \times 0.001$  in standard form.
- c. Write  $6 \times 1 + 8 \times \frac{1}{10} + 3 \times \frac{1}{100}$  in standard form.

## 9 Order from least to greatest

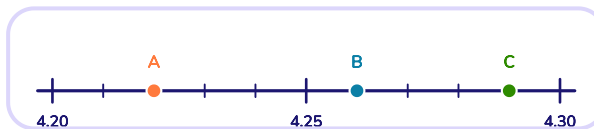


Order these numbers from least to greatest: **4.052, 4.25, 4.5, 4.205, 4.025.**

## 10 Reading a number line



The number line shows points **A**, **B** and **C**. Each small tick is one hundredth.



- a. Write the value of each point.
- b. Round each value to the nearest tenth.

## 11 Multiplying by powers of 10



Calculate: (a)  $3.42 \times 10$  (b)  $0.068 \times 100$  (c)  $5.7 \times 1,000$  (d)  $0.4 \times 10^2$  (e)  $12.5 \times 10^3$ .

## 12 Dividing by powers of 10



Calculate: (a)  $4.5 \div 10$  (b)  $62 \div 100$  (c)  $8.3 \div 1,000$  (d)  $730 \div 10^2$  (e)  $0.9 \div 10^2$ .

### 13 Sprint times



Four runners finished the 100-meter dash in these times (in seconds): Ava **11.48**, Ben **11.4**, Cleo **11.52**, Dev **11.399**. Who won? List the runners from first to last place.

### 14 Rounding to different places



Round **7.4968** to (a) the nearest whole number, (b) the nearest tenth, (c) the nearest hundredth, (d) the nearest thousandth.

### 15 Metric conversions



- a. A rope is **3.5** meters long. How many centimeters is that?
- b. A bottle holds **2,450** milliliters. How many liters is that?
- c. A **7.2**-kilogram bag of rice is shared equally into 100 packets. How much rice is in one packet, in kilograms and in grams?

### 16 True or false?



Decide if each statement is true or false, and explain.

- a. **0.30** > **0.3**
- b.  **$5.6 \times 10^2 = 5,600$**
- c. **0.07** is 10 times as much as **0.007**.
- d. **3.09** > **3.1**

### 17 Mystery number



Find my number. It has 2 digits before the decimal point and 3 after it. The tens digit is 2. The ones digit is 7. The tenths digit is 3 less than the ones digit. The hundredths digit is 0. The thousandths digit is 1 more than the tenths digit.

- What is my number?
- Write it in words.
- Round it to the nearest tenth.
- What do you get when you multiply it by  $10^2$ ?

### 18 Find the mistake



Leo wrote: " $2.5 \times 10^3 = 2.5000$ " and " $0.45 \div 10 = 4.5$ ". Explain each mistake and give the correct answers.

### 19 Digits and numbers in between



- Use the digits 3, 0, 5 and 7 exactly once each to fill the pattern \_\_\_\_\_. What is the greatest number you can make? The least?
- Write three decimals between **0.47** and **0.48**.
- How many numbers with exactly three decimal places lie strictly between **0.47** and **0.48**?

### 20 Under the microscope



A bacterium is **0.0042** cm long. A microscope magnifies by  $10^3$  and another one by  $10^2$ .

- How long does it look with the  $10^3$  microscope?
- How long with the  $10^2$  microscope?
- How many times longer is the first image than the second?

## 21 Capsule factory



A factory puts **4.6** grams of a vitamin powder in each capsule. A batch contains  **$10^3$**  capsules.

- How many grams of powder are in one batch? How many kilograms?
- The powder of the batch is poured equally into  **$10^2$**  jars. How many grams are in each jar?

## 22 Comparing places



In the number **555.555**:

- The 5 in the hundreds place is how many times the value of the 5 in the tens place?
- The 5 in the tens place is what fraction of the 5 in the hundreds place?
- How many times the value of the 5 in the hundredths place is the 5 in the hundreds place? Write the answer as a power of 10.



## Test yourself: quick challenge for Grade 5

[Change level](#)

Level : **Grade 5**

6 random questions, instant feedback.



**Start the challenge**



**Speed drill for Grade 5: how many in 60 seconds?**



  **Keep exploring with Zyro**

 **Practice solutions**

Place Value and Decimals: practice solutions, Grade 5

 **Math lessons**

Place Value and Decimals: math lesson, Grade 5

 **Math quizzes**

Place Value and Decimals: math quiz, Grade 5

 **Practice solutions**

Multi-Digit Multiplication: practice solutions, Grade 5

✓ **Practice solutions**

Dividing Whole Numbers: practice solutions, Grade 5

■ **Math lessons**

Multi-Digit Multiplication: math lesson, Grade 5

**Zyro vous emmène sur nos sites partenaires**

Embarquez pour d'autres planètes du savoir et leurs applis.

Décollage