

Grade 5 - Place Value and Powers of Ten - Quiz

Common Core 5.NBT.A.1, 5.NBT.A.2 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

Answer these 10 multiple-choice questions about place value and powers of 10. Choose the one best answer for each question. Some questions show the decimal point moving. Read each explanation to learn from your mistakes.

Grade 5 · Common Core State Standards: **5.NBT.A.1, 5.NBT.A.2**

Questions

Question 1

In 5,500, how does the 5 in the thousands place compare with the 5 in the hundreds place?

Thousands	Hundreds	Tens	Ones
5	5	0	0

The number 5,500.

- A. It is worth 100 times as much
- B. It is worth 1/10 as much
- C. It is worth the same
- D. It is worth 10 times as much

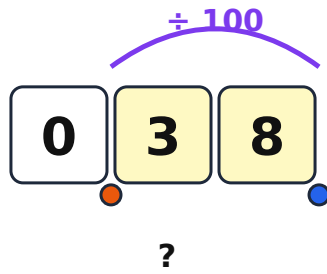
Question 2

What is 4.6×10 ?

- A. 46
- B. 4.60
- C. 460
- D. 0.46

Question 3

What is $38 \div 100$?



Two places left.

- A. 3.8
- B. 0.38
- C. 0.038
- D. 380

Question 4

What is the value of 10^4 ?

- A. 40
- B. 1,000
- C. 100,000
- D. 10,000

Question 5

What is 0.07×10^3 ?

- A. 7
- B. 700
- C. 70
- D. 0.7

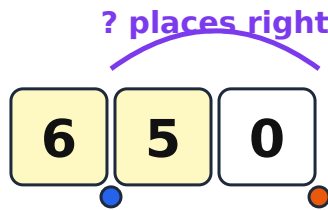
Question 6

What is $9,200 \div 10^2$?

- A. 92
- B. 920
- C. 9.2
- D. 0.92

Question 7

Which exponent makes this true? $6.5 \times 10^? = 650$



6.5 → 650

Count the places.

- A. 1
- B. 2
- C. 3
- D. 4

Question 8

Which number is $\frac{1}{10}$ of 0.8?

- A. 0.08
- B. 8
- C. 0.18
- D. 0.008

Question 9

Which expression equals $10 \times 10 \times 10$?

$$\boxed{10} \times \boxed{10} \times \boxed{10}$$

Three 10s.

- A. 3×10
- B. 10^3
- C. 10^{30}
- D. $10 + 3$

Question 10

Ethan saves \$3.40 each month. How much does he save in 100 months?

- A. \$34
- B. \$3,400
- C. \$340
- D. \$34,000

Answers

1. **D** – 5,000 is 10 times 500, because each place is 10 times the place to its right.
2. **A** – Multiplying by 10 moves the point one place right: 4.6 becomes 46.
3. **B** – Dividing by 100 moves the point two places left: 38 becomes 0.38.
4. **D** – 10 to the fourth power is $10 \times 10 \times 10 \times 10 = 10,000$, with 4 zeros.
5. **C** – Move the point 3 places right: 0.07 becomes 70.
6. **A** – Move the point 2 places left: 9,200 becomes 92.
7. **B** – 6.5 becomes 650 when the point moves 2 places right, so the exponent is 2.
8. **A** – One tenth of 0.8 is $0.8 \div 10 = 0.08$.
9. **B** – Three factors of 10 make 10^3 , which is 1,000. 3×10 is only 30.
10. **C** – Multiply by 100: the point moves 2 places right, so 3.40 becomes 340.

Remember

- Each place is 10 times the place to its right and $1/10$ of the place to its left.
- The exponent of a power of 10 tells how many 10s are multiplied and how many zeros the value has.
- Multiplying by a power of 10 moves the decimal point right by the exponent.
- Dividing by a power of 10 moves the decimal point left by the exponent.
- 10 to the third power means $10 \times 10 \times 10 = 1,000$, not 3×10 .