

Practice Problems for Numbers
from www.topmath.info

1 What is the base 10 equivalent of the binary number 110?

2 What is the base 10 equivalent of the binary number 1100?

3 (T/F): 7 is an integer.

4 (T/F): -1562 is an odd number.

5 (T/F): The square root of 64 is an irrational number.

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6 (T/F): The number 3.45455455545555. . . is rational.

7 What number equals 44 one-hundredths?

8 What digit is in the hundreds place in the number 718?

9 What digit is in the hundreds place in the number 1,865,869,301?

10 (T/F): If $x^2 > y^2$, then $|x| > y$.

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11 What number is 19.01 to the right of 0.11 on the number line?

12 What is $18 - 9.1$?

13 What is $73.8 \div 8.2$?

14 Write the number 553 in expanded form.

15 What number equals the Roman numeral XXII ?

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1 ANSWER: 6

2 ANSWER: 12

3 ANSWER: True. EXPLANATION: An integer has no digits to the right of the decimal point. Since 7 has no digits to the right of the decimal point, it is an integer.

4 ANSWER: False. EXPLANATION: A number is even if and only if it is an integer that ends in 0, 2, 4, 6, or 8. Integers that end in 1, 3, 5, 7, or 9 are odd. Since -1562 ends in 2, it is even.

5 ANSWER: False. EXPLANATION: The square root of 64 is 8, which is an integer, and therefore rational.

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6 ANSWER: False. EXPLANATION: A rational number has one or more digits to the right of the decimal point that repeat forever. Here, the number of 5's after each 4 keeps growing, so the number is irrational.

7 ANSWER: 0.44. EXPLANATION: To solve this, simply multiply 44 by 0.01.

8 ANSWER: 7

9 ANSWER: 3

10 ANSWER: True. EXPLANATION: The use of absolute value eliminates the possibility that the left side of the inequality is negative.

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11 ANSWER: 19.12

12 ANSWER: 8.9

13 ANSWER: 9.0

14 ANSWER: $500 + 50 + 3$. EXPLANATION: To convert numbers to expanded notation, write the values of the numbers from left to right, with plus signs in between. Skip the zeroes.

15 ANSWER: 22