

UNIT 1 Math Post Test – STUDY & Practice Guide
****Test will be given NEXT WEEK on Tuesday & Wednesday****

I Do:

True or False:

180 is $1/10$ of 18	false
450 is 10 times as much as 400	false
800 is $1/10$ of 8,000	true
3,400 is 10 times as much as 340	true

You Practice:

True or False:

160 is $1/10$ of 16	true	false
550 is 10 times as much as 500	true	false
600 is $1/10$ of 6,000	true	false
5,500 is 10 times as much as 550	true	false

Luke has 1,200 coins. He has 100 times as many coins as he had last month. How many coins did Luke have last month?

Answer:

Luke has more coins this month than he had last month. Luke had 12 coins last month because $12 \times 100 = 1,200$.

You practice: Abby has 2,300 marbles. She has 100 times as many marbles than she had last month. How many marbles did Abby have last month?

Gianna earned 40,000 bonus points on her computer assignment. This is 10 times as many points as she had earned last week. How many points did Gianna earn last week?

Answer:

Last week Gianna had fewer points, so $40,000 \div 10 = 4,000$. Gianna had 4,000 point last week.

You practice: Kylie earned 15,000 bonus stickers on her computer game. This is 100 times as many stickers as she had earned last week. How many stickers did Kylie earn last week?

Choose all that are equivalent to 23.7

Answer: $(2 \times 10) + (3 \times 1) + (7 \times 1/10)$

20 + 3 + 0.7

Twenty-three and seven tenths

You practice: Write equivalent statements for **46.8**

Explain how you know that the value of the digit 3 in the numbers 403,000 and 400,300 are related by comparing the two numbers.

Answer: 3 in 403,000 has a value of 3,000 because the 3 is in the thousands place
 3 in 400,300 has a value of 300 because the 3 is in the hundreds place
 $3,000 > 300$
 $300 \times 10 = 3,000$
 $3,000 \div 10 = 300$

You practice: Explain how you know that the value of the digit 8 in the numbers 708,000 and 700,800 are related by comparing the two numbers:

Exponent Form to Standard Form

$10^0 = 1$
 $10^1 = 10$
 $10^2 = 100$
 $10^3 = 1,000$

Solve:

Answers:
 $800 \div 10^3 = 0.8$ moved the decimal left three times
 $0.1345 \times 10^4 = 1,345$ moved the decimal right four times
 $9.634 \times 10,000 = 96,340$ moved the decimal right 4 times

You practice:

$10^4 =$ _____
 $10^5 =$ _____
 $10^6 =$ _____
 $10^7 =$ _____

You practice:

$700 \div 10^3 =$ _____
 $0.248 \times 10^5 =$ _____
 $7.268 \times 1,000 =$ _____

The following equations involve different quantities and use different operations, yet produce the same result. Draw a value chart and use words to explain why this is true.

$3.12 \times 10^3 = 3,120$ $312,000 \div 100 = 3,120$

Answer:
 $10^3 = 1,000$ so you need to move the decimal three places to the right because you are multiplying.

Dividing by 100 means you need to move the decimal point 2 places to the left because you are dividing.

You practice:

$5.15 \times 10^3 = 5,150$ $515,000 \div 100 = 5,150$

3	1	2	0	.		
			3	.	1	2

Write **equivalent statements** for eighty-five thousandths:

Answer:

$$(8 \times 0.01) + (5 \times 0.001)$$

$$85/1,000$$

$$0.08 + 0.005$$

You Practice: ninety-seven thousandths

Zach kept a record of how many minutes of TV he watched in a month. His results are shown below. Order the weeks Zach watched TV from the **least** amount to **greatest** amount.

Week 1: 120.876

Week 2: 120.864

Week 3: 119.999

Week 4: 119.099

Answer: Week 4, Week 3, Week 2, Week 1

You practice: Riley kept a record of how many miles she ran each week for a month. Her results are below. Order the weeks from the least amount to the greatest amount.

Week 1: 5.768

Week 2: 5.762

Week 3: 4.29

Week 4: 4.75

Compare the decimals using $>$, $<$, $=$

$$0.74 > 0.69$$

$$0.09 > 0.009$$

$$7.175 > 7.099$$

You practice:

$$0.63 \underline{\quad} 0.60$$

$$0.034 \underline{\quad} 0.4$$

$$77.09 \underline{\quad} 77.89$$

Matthew claims that 88.653 is closer to 88.6 than 88.7. Is Matthew correct?

No, Matthew is not correct. 88.653 rounded to the tenths place would be 88.7 because the 5 would make the 6 move to a 7.

You practice. Jayson claims that 55.673 is closer to 55.67 than 55.68. Is Jayson correct?

What is 9.5897 rounded to the nearest **thousandth**? 9.590
What is 12.123 rounded to the nearest **tenth**? 12.1
What is 9.039 rounded to the nearest **hundredth**? 9.04

You practice:

What is 7.5878 rounded to the nearest **thousandth**? _____
What is 18.236 rounded to the nearest **tenth**? _____
What is 3.078 rounded to the nearest **hundredth**? _____

Between which two numbers is 4.225 located?

- 4.25 and 4.26
- 4.24 and 4.25
- 4.23 and 4.24
- 4.22 and 4.23 *** this one because 4.225 would round to 4.23

You practice:

Between which two numbers is 6.225 located?

- 6.25 and 6.26
- 6.22 and 6.23
- 6.23 and 6.24
- 6.24 and 6.25

Using the amounts below, how could you show the number 34,725?

1 **Answer:**
10 $(3 \times 10,000) + (4 \times 1,000) + (7 \times 100) + (2 \times 10) + (5 \times 1)$
100 OR
1,000 $(2 \times 10,000) + (14 \times 1,000) + (6 \times 100) + (12 \times 10) + (5 \times 1)$
10,000

You practice: Using the amounts below, how could you show the number 87,429?

- 1
- 10
- 100
- 1,000
- 10,000

Remember – Our place value system is a base 10 system.