I Do:

True or False:
180 is $1 / 10$ of 18
450 is 10 times as much as 400
800 is $1 / 10$ of 8,000
3,400 is 10 times as much as 340

|  | You Practice: |  |  |
| :--- | :--- | :--- | :--- |
| false | True or False: |  |  |
| false | 160 is $1 / 10$ of 16 | true | false |
| true |  |  |  |
| true | 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 |  |

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

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

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

Elena 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 Elena earn last week?
Answer:

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

You practice: Saffron 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 Saffron earn last week?

Choose all that are equivalent to 23.7
Answer: $\quad(2 \times 10)+(3 \times 1)+(7 \times 1 / 10)$
$20+3+0.7$

Twenty-three and seven tenths

You practice: Write equivalent statements for 46.8
$\qquad$
$\qquad$

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: $\quad 3$ 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
$10^{0}=1$
$10^{1}=10$
$10^{2}=100$
$10^{3}=1,000$

$$
\begin{aligned}
& \text { You practice: } \\
& 10^{4}= \\
& 10^{5}= \\
& 10^{6}= \\
& 10^{7}= \\
&
\end{aligned}
$$

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:

$700 \div 10^{3}=$ $\qquad$
$0.248 \times 10^{5}=$ $\qquad$
$7.268 \times 1,000=$ $\qquad$

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.

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

## You practice:

$5.15 \times 10^{3}=5,150 \quad 515,000 \div 100=5,150$
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.

| 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
$\qquad$
$\qquad$
$\qquad$

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

Week 1: $\quad 120.876$
Week 2: 120.864
Week 3: 119.999
Week 4: 119.099

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

You practice: Salina 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: $\quad 5.768$
Week 2: $\quad 5.762$
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
``` \(\qquad\)
``` 0.60
0.034
``` \(\qquad\)
``` 0.4
77.09 77.89
```

Cole claims that 88.653 is closer to 88.6 than 88.7. Is Cole correct?
No, Cole 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. Junior claims that 55.673 is closer to 55.67 than 55.68 . Is Junior correct?

What is 9.5897 rounded to the nearest thousandth?
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
10
100
1,000
10,000

## Answer:

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

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

1
10
100
1,000
10,000

