# Helping With Math 

## Decimals in a Number Line

Suitable for students aged 8-10

Hello! I'm John! It's my birthday today! Come and celebrate with me while learning Decimals in a Number Line :)

This pack is
suitable for learners aged 8-10 years old or 4th and 5th graders (USA). The content covers fact files and relevant basic and advanced activities involving decimals in a number line.


## What is a number line?

A number line is a line that represents numbers that are arranged in ascending order, meaning, least to greatest. This line also extends from the middle, going to the left and to the right.

## CREATING NUMBER LINES WITH DECIMALS



Decimal is one way of writing numbers that have whole and fractional part. It contains a decimal point which separates the whole and fractional number

## How to create number lines with decimals?

- In creating number lines with tenths, first we divide the line into 10 equally spaced segments just like the figure below.
- Start with the least number on the left. The decimal numbers increase to the right until the next whole number.
$\xrightarrow{2}$


## CREATING NUMBER LINES WITH DECIMALS

What happens when we reach the whole number? Then, the next number in the line would be the whole number plus each additional tenth as shown below.


Number line involving hundredths:


$$
\begin{array}{lllllllllll}
1 & 1.01 & 1.02 & 1.03 & 1.04 & 1.05 & 1.06 & 1.07 & 1.08 & 1.09 & 1.1
\end{array}
$$

Number line involving thousandths:


## LET'S PRACTICE!

Arrange the decimals in the number line correctly.

| 2.08 | 2.05 |
| :---: | :---: |
| 2.04 | 2.07 |
| 2.01 | 2.02 |
| 2.03 | 2 |



| 0.06 | 0 |
| :---: | :---: |
| 0.02 | 0.04 |
| 0.08 | 0.12 |
| 0.10 | 0.14 |



| 4.5 | 6.5 |
| :--- | :--- |
| 7.5 | 6.0 |
| 7.0 | 4.0 |
| 5.0 | 5.5 |



| 6.001 | 6.003 |
| :--- | :--- |
| 6.008 | 6.004 |
| 6.005 | 6.002 |
| 6.007 | 6.0 |



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## IT'S RAINING GIFTS!

Let's unbox your birthday gifts! Before that, answer the following first. Fill in the missing decimals according the increment stated below.

1. Increment of 0.6

2. Increment of 0.3

3. Increment of 0.02
4. Increment of 0.1
5. Increment of 0.5


## BIRTHDAY VENUE

I'm lost! I can't find the way to the birthday venue. Help me by answering the following. Arrange the decimals in the number line. Write your answers on the lines provided.

2.10
1.8
2.3


2

$$
0.04
$$

0.08

0
0.12
0.16
0.14


Complete the 18 gifts to be given to the birthday celebrant by writing the missing decimals in between the first and last numbers then plot the decimal that is being stated below. Write your answers below the number line.

## 1

Plot 2.4 on the number line


## 2

Plot 1.02 on the number line


## 3

Plot 5.05 on
the number line


## 4

Plot 0.12 on the number line


## BIRTHDAY COSTUME

Help me decide what costume should I wear for my friend's upcoming birthday party. Create a number line by following the instructions below. Write your answers on the lines provided.

Create a number line that starts with 0 and ends with 0.7 with an interval of 0.1


2
Create a number line that starts with 5 and ends with 5.35 with an interval of 0.05


3 Create a number line that starts with 3 and ends with 4.4 with an interval of 0.2


## WHERE IS THE BIRTHDAY CELEBRANT?

The birthday celebrant is missing! It's time for her to show up. Help me locate her by locating the decimals stated below. Complete the number line and mark the decimals that are stated below. Number 1 is for your reference.
1.) $A-0.4$

B-1.2
2.) A-3.6

B-4.2

3.) $\mathrm{A}-1.10$

B-1.25

4.) A-5.3 B-5.5
5.) A - 4.09

B-5.12

6.) A-7.09

B-7.45


## CAKE FOR MOM

It's my mom's birthday! I will bake a cake for her. Help me by writing the missing decimals on the number line. Write your answers on the lines provided.


## LOTS OF BALLOONS!

There's a lot of birthday balloons! Do you want to bring one home? You can get one if you can identify the decimal numbers which correspond to the following letters below. Write your answers on the space provided.

1.41 .6

1.) $A=$
2.) $B=$
3.) $\mathrm{C}=$
4.) $\mathrm{D}=$
5.) $E=$
6.) $F=$
7.) $\mathrm{G}=$
8.) $\mathrm{H}=$
9.) I $=$
10.) $\mathrm{J}=$

## BIRTHDAY GAMES

Come and join the birthday games to win exciting prizes! To join, fill in the missing boxes with the correct decimal numbers. Write your answers on the space provided.

1


2


3


4


## DRAWING TIME!


#### Abstract

It's John's birthday and his parents prepared a drawing activity. Participate in the drawing activity by drawing the correct shape for each decimal number below. Draw your answers on the space provided.




## BIRTHDAY BANNER

Help me make a birthday banner for Kim's birthday party tomorrow. To do that, complete the number lines below by filling in the lines with the correct decimal numbers. Write your answers on the lines provided.

1 Complete the number line with tenths.


2 Complete the number line with hundredths


## ANSWER GUIDE

## Activity 1



## Activity 2

1.)

$\begin{array}{llllllll}1.6 & 1.7 & 1.8 & 1.9 & 2.0 & 2.1 & 2.2 & 2.3\end{array}$
2.)

$\begin{array}{llllllll}0 & 0.02 & 0.04 & 0.06 & 0.08 & 0.10 & 0.12 & 0.14\end{array}$
3.)

## Activity 3

1.)


## ANSWER GUIDE

2.)
 $\begin{array}{llllllll}1 & 1.02 & 1.04 & 1.06 & 1.08 & 1.10 & 1.12 & 1.14\end{array}$
3.)
 $\begin{array}{lllllllll}5 & 5.05 & 5.10 & 5.15 & 5.20 & 5.25 & 5.30 & 5.35\end{array}$
4.)

## Activity 4

1.)

2.)

$\begin{array}{lllllllll}5 & 5.05 & 5.10 & 5.15 & 5.20 & 5.25 & 5.30 & 5.35\end{array}$
3.)

Activity 5
1.)
 $\begin{array}{llllllll}0 & 0.2 & 0.4 & 0.6 & 0.8 & 1.0 & 1.2 & 1.4\end{array}$
2.)


## ANSWER GUIDE

3.)

4.) |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\begin{array}{llllllllll}1 & 1.05 & 1.10 & 1.15 & 1.20 & 1.25 & 1.30 & 1.35\end{array}$
$\begin{array}{llllllll}5 & 5.1 & 5.2 & 5.3 & 5.4 & 5.6 & 5.7 & 5.6\end{array}$
5.)

$\begin{array}{llllllll}4 & 4.03 & 4.06 & 4.09 & 5.12 & 5.15 & 5.18 & 5.21\end{array}$
6.)

Activity 6
1.)

$\begin{array}{llllllll}4 & 4.4 & 4.8 & 5.2 & 5.6 & 6 & 6.4 & 6.8\end{array}$
2.)
 $\begin{array}{llllllll}9 & 9.1 & 9.2 & 9.3 & 9.4 & 9.5 & 9.6 & 9.7\end{array}$
3.)

$\begin{array}{llllllllll}2 & 2.03 & 2.06 & 2.09 & 2.12 & 2.15 & 2.18 & 2.21\end{array}$
4.)

## ANSWER GUIDE

## Activity 7

1.) 0.4
2.) 1.2
3.) 1.8
4.) 2.8
5.) 3.4
6.) 0
7.)0.8
8.) 2
9.) 2.6
10.) 3.6

Activity 8


## ANSWER GUIDE

## Activity 9


2.) (D) 3.) $\triangle$
4.) $(b$
5.) 2
6.) $\square$
7.) $\bigcirc$
9.) $\odot$ 10.) $\sqrt{ } \sqrt{ }$

Activity 10

> 1.)
> 2.)

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