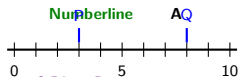


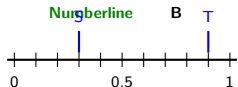
Number Sense: Starters

Starter 1 (1 of 3)

oś liczbowa



oś liczbowa



100 10 1 · 0.1 0.01

4	0	7	·	5	2
---	---	---	---	---	---

osi liczbowej

1. On numberline

A what numbers

are marked by P

and Q ?

osi liczbowej

2. On numberline

B what numbers

are marked by S

and T ?

3. Mark 6 on Line A

and 0.45 on

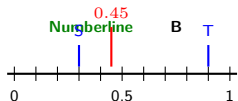
Line B.

Starter 1 (1 of 3)

oś liczbowa



oś liczbowa



100 10 1 · 0.1 0.01

4	0	7	·	5	2
---	---	---	---	---	---

osi liczbowej

1. On numberline

A what numbers

are marked by P

and Q ? 3 and 8

osi liczbowej

2. On numberline

B what numbers

are marked by S

and T ? 0.3 and

0.9

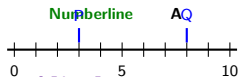
3. Mark 6 on Line A

and 0.45 on

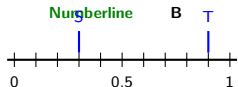
Line B.

Starter 1 (2 of 3)

oś liczbowa



oś liczbowa



100 10 1 · 0.1 0.01

4	0	7	·	5	2
---	---	---	---	---	---

1. Sam says $P = 4$, as

it is the 4th mark.

What has he done

wrong?

407.52. What is

the 4 worth? And

the 5?

3. Work out

407.52×10 and

$407.52 \div 10$.

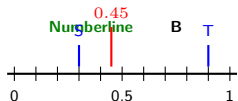
2. The chart shows

Starter 1 (2 of 3)

oś liczbowa



oś liczbowa



100 10 1 · 0.1 0.01

4	0	7	·	5	2
---	---	---	---	---	---

1. Sam says $P = 4$, as

it is the 4th mark.

What has he done

wrong? Counted

marks, not
kroków

steps : $P = 3$

2. The chart shows

407.52. What is

the 4 worth? And

the 5? 400 and 0.5

3. Work out

407.52×10 and

$407.52 \div 10$.

4075.2 and 40.752

Starter 1 (3 of 3)

oś liczbowa

1. A **numberline** goes from 3.6 to 3.7 in 10 equal **steps** .

What is 3 **steps** along

from 3.6?

2. Use 7, 5, 4, 2 and a **przecinek dziesiętny** **decimal point** to

make the largest number

mniejsza niż

less than 100.

Starter 1 (3 of 3)

oś liczbowa

1. A numberline goes from 3.6 to 3.7 in 10 equal steps .

kroków

What is 3 steps along

from 3.6? 3.63

2. Use 7, 5, 4, 2 and a przecinek dziesiętny decimal point to

make the largest number

mniejsza niż

less than 100. 75.42

Starter 2: Inequality Symbols & Ordering Decimals (1 of 3)

1. Fill in $<$ or $>$:

7 12

30 3

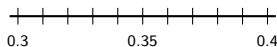
3. On the
wartość pozycyjna
place value

chart, which is

bigger, 0.4 or 0.35?

Why?

Line A



Wartość pozycyjna

2. In 0.405, what is

the 4 worth?

1 . Place value 0.1 0.01 0.001 chart

0	.	4		
0	.	3	5	
0	.	4	0	5

Starter 2: Inequality Symbols & Ordering Decimals (1 of 3)

1. Fill in $<$ or $>$:

$$7 < 12$$

$$30 > 3$$

3. On the
wartość pozycyjna
place value

chart, which is

bigger, 0.4 or 0.35?

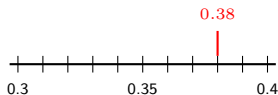
2. In 0.405, what is

the 4 worth? 4
części dziesiąte
tenths ,

0.4

Why? 0.4: 4
części dziesiąte
tenths is
większe niż
greater than 3
części dziesiąte
tenths

Line A



Wartość pozycyjna

1 . Place value 0.1 0.01 0.001 chart

0	.	4		
0	.	3	5	
0	.	4	0	5

Starter 2: Inequality Symbols & Ordering Decimals (2 of 3)

1. Fill in $<$, $>$ or $=$

0.4?

Uporządkuj

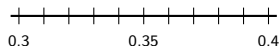
0.4 0.40,

3. Order ,

Line A

0.6 0.06

smallest first: 0.5,



2. Mark 0.38 on Line

0.45, 0.405, 0.54

Wartość pozycyjna

1 . Place value 0.1 0.01 0.001 chart

0	.	4		
0	.	3	5	
0	.	4	0	5

A. Is it nearer 0.3 or

Starter 2: Inequality Symbols & Ordering Decimals (2 of 3)

1. Fill in $<$, $>$ or $=$

$$0.4 = 0.40,$$

$$0.6 > 0.06$$

0.4? nearer 0.4

Uporządkuj

3. Order ,

smallest first: 0.5,

0.45, 0.405, 0.54

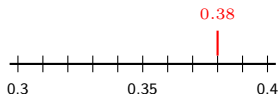
0.405, 0.45, 0.5,

0.54

2. Mark 0.38 on Line

A. Is it nearer 0.3 or

Line A



Wartość pozycyjna

1 . Place value 0.1 0.01 0.001 chart

0	.	4		
0	.	3	5	
0	.	4	0	5

Starter 2: Inequality Symbols & Ordering Decimals (3 of 3)

1. True or false: more **cyfry** **digits** **przecinek dziesiętny** **decimal point** means *after* the a bigger number? Give an example/counter-example.

2. Alfie says $0.45 > 0.5$ as

$45 > 5$. Explain his mistake,

then write a **ułamek dziesiętny** **decimal** between

0.4 and 0.405.

Starter 2: Inequality Symbols & Ordering Decimals (3 of 3)

1. True or false: more **cyfry**
digits *after* the
przecinek dziesiętny
decimal point means
a bigger number? Give an
example/counter-example.

False: $0.9 > 0.1234$

2. Alfie says $0.45 > 0.5$ as

$45 > 5$. Explain his mistake,

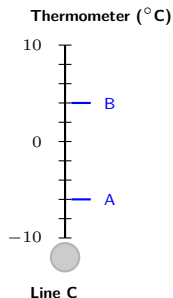
then write a
ułamek dziesiętny
decimal between

0.4 and 0.405. **0.5 has 5**

części dziesiąte

tenths ; e.g. 0.402

Starter 3: Ordering Negative Numbers (1 of 3)

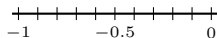


1. Which is colder, 4°C or -4°C ?

and B.

2. What is each mark on the thermometer worth? Write the temperatures at A

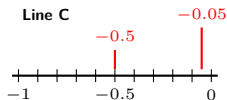
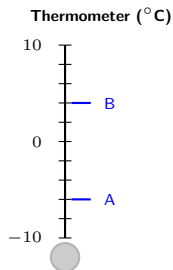
3. Which is colder, -3 or -8 ? Fill in: -3 ? -8



mniej lub równe

$\leq$: less than or equal to

Starter 3: Ordering Negative Numbers (1 of 3)



mniej lub równo

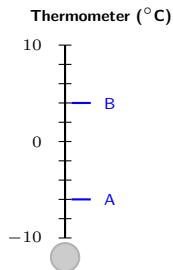
$\leq$: less than or equal to

1. Which is colder, 4°C or -4°C ?
2. What is each mark on the thermometer worth? Write the temperatures at A

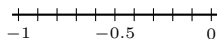
and B. 2°C per mark; $A = -6$, $B = 4$

3. Which is colder, -3 or -8 ? Fill in: $-3 > -8$ (-8 is colder)

Starter 3: Ordering Negative Numbers (2 of 3)



Line C



mniejsze lub równe

$\leq$: less than or equal to

Uporządkuj

1. Order ,

smallest first: -2 ,

5 , -7 , 0 , -1

2. Mark -0.5 and

-0.05 on Line C.

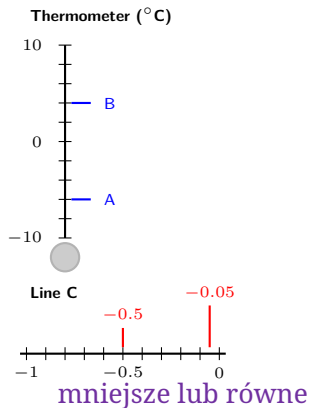
Which is larger?

3. Fill in $<$ or $>$:

-4.5 ? -4.05 ,

-0.3 ? 0.03

Starter 3: Ordering Negative Numbers (2 of 3)



$\leq$: less than or equal to

Uporządkuj

1. Order ,

smallest first: -2 ,

5 , -7 , 0 , -1

$(-7, -2, -1, 0, 5)$

2. Mark -0.5 and

-0.05 on Line C.

Which is larger?

-0.05

3. Fill in $<$ or $>$:

$-4.5 < -4.05$,

$-0.3 < 0.03$

Starter 3: Ordering Negative Numbers (3 of 3)

1. (Extension) **Uporządkuj**
Order ,

smallest first: -0.08 , 0.7 ,

-0.8 , -0.75

2. (Challenge) List the
liczby całkowite
integers n :

$-3 \leq n < 2$. Write a number

between -0.5 and -0.4 .

Starter 3: Ordering Negative Numbers (3 of 3)

1. (Extension) **Uporządkuj**
Order ,

smallest first: $-0.08, 0.7,$

$-0.8, -0.75$ ($-0.8, -0.75,$

$-0.08, 0.7$)

2. (Challenge) List the
liczby całkowite
integers n :

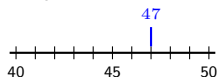
$-3 \leq n < 2$. Write a number

between -0.5 and -0.4 .

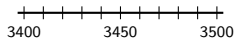
$-3, -2, -1, 0, 1$; e.g. -0.45

Starter 4: Rounding Integers (1 of 3)

Line A



Line B



1. Fill in $<$ or $>$:

$$-6 ? -2$$

the nearest 10.

2. Line A: is 47 nearer

40 or 50?

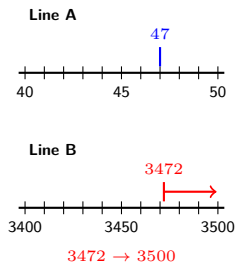
Zaokruglij

Round it to

3. Round to the

nearest 10: 32, 85

Starter 4: Rounding Integers (1 of 3)



1. Fill in $<$ or $>$:

$$-6 < -2$$

2. Line A: is 47 nearer

40 or 50?

Zaokrąglij

Round it to

the nearest 10.

nearer 50, so 50

Zaokrąglij

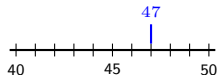
3. Round to the

nearest 10: 32, 85

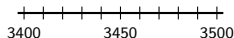
(30 and 90)

Starter 4: Rounding Integers (2 of 3)

Line A



Line B



1. Mark 3472 on Line B, then

zaokrąglij

round

to the nearest

1000.

it to the nearest

100.

Zaokrąglij

2. Round 3472

to the nearest 10;

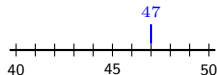
Zaokrąglij

3. Round 4950

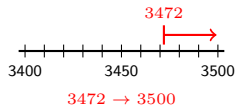
to the nearest 100.

Starter 4: Rounding Integers (2 of 3)

Line A



Line B



1. Mark 3472 on Line B, then

zaokrąglij

round

to the nearest

1000. 3470 and

it to the nearest

3000

Zaokrąglij

100.

3. Round 4950

Zaokrąglij

2. Round 3472

to the nearest 100.

to the nearest 10;

5000

Starter 4: Rounding Integers (3 of 3)

zaokrągla

1. Zoe rounds 8449 to the nearest 100:

8449 $\rightarrow$ 8450 $\rightarrow$ 8500. What is her mistake?

zaokrąglone

2. A number rounded to the nearest 10 is 250. What is the smallest it could be? The largest?

Starter 4: Rounding Integers (3 of 3)

zaokrągla

1. Zoe rounds 8449 to the nearest 100:

8449 $\rightarrow$ 8450 $\rightarrow$ 8500. What is her mistake?
 Zaokrąglone
 Rounded

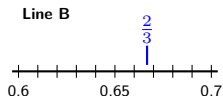
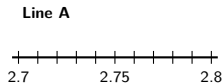
twice: only the
 cyfra dziesiątek
 tens digit 4 counts,

so 8400

zaokrąglone

2. A number rounded to the nearest 10 is 250. What is the smallest it could be? The largest? 245 and 254

Starter 5: Rounding Decimals & Never-Ending Decimals (1 of 3)



- Zaokrąglj
1. Round 4738

4.6, 12.348

to the nearest 100.

- Zaokrąglj
2. Round to the

nearest

liczba całkowita nieujemna

whole number

3. Mark 2.763 on Line

Zaokrąglj

A. Round it to

1

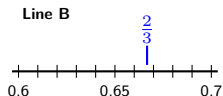
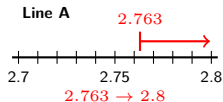
miejsce dziesiętne

decimal place

:

(d.p.).

Starter 5: Rounding Decimals & Never-Ending Decimals (1 of 3)



- Zaokrąglij**
- Round** 4738 to the nearest 100.

- 4700**
- Zaokrąglij**
- Round** to the

nearest

liczba całkowita nieujemna

whole number

4.6, 12.348 (**5 and 12**)

- Mark 2.763 on Line A. **Round** it to

1

miejsce dziesiętne

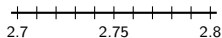
decimal place

:

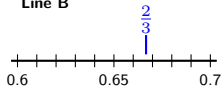
(d.p.).

Starter 5: Rounding Decimals & Never-Ending Decimals (2 of 3)

Line A



Line B



Zaokruglij

1. Round to 1

d.p.: 4.62, 0.95.

Why is 0.95 not 1?

d.p. Why not

12.4?

Zaokruglij

2. Round 12.348

to 2 d.p., then to 1

3. Line B shows

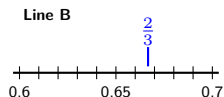
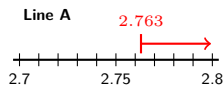
$$\frac{2}{3} = 0.\dot{6}.$$

Zaokruglij

Round it to 1

d.p. and 2 d.p.

Starter 5: Rounding Decimals & Never-Ending Decimals (2 of 3)



Zaokrąglij

1. Round to 1

d.p.: 4.62, 0.95.

Why is 0.95 not 1?

4.6, 1.0 — 1 d.p.

needs one decimal

cyfra

digit

Zaokrąglij

2. Round 12.348

to 2 d.p., then to 1

d.p. Why not

12.4? 12.35, 12.3

— never

zaokrąglaj

round

twice

3. Line B shows

$$\frac{2}{3} = 0.\dot{6}$$

Zaokrąglij

Round

it to 1

d.p. and 2 d.p. 0.7

and 0.67

Starter 5: Rounding Decimals & Never-Ending Decimals (3 of 3)

ułamki dziesiętne

Never-ending

decimals

$$\frac{2}{3} = 0.6666 \dots = 0.\dot{6}$$

$$\frac{1}{7} = 0.142857142857 \dots$$

$$\pi = 3.14159265 \dots$$

$$\sqrt{2} = 1.41421356 \dots$$

$$0.1010010001 \dots$$

1. (Extension) Write

$\frac{1}{3}$ in

notacja kropkowa

dot notation

zaokrąglj

then round $\frac{1}{7}$

to 3 d.p.

ułamki dziesiętne

decimals

never settle into a

okres

repeating block?

Can one still be a

ułamek

fraction?

2. (Challenge) Which

listed

Starter 5: Rounding Decimals & Never-Ending Decimals (3 of 3)

ułamki dziesiętne

Never-ending

decimals

$$\frac{2}{3} = 0.6666 \dots = 0.\dot{6}$$

$$\frac{1}{7} = 0.142857142857 \dots$$

$$\pi = 3.14159265 \dots$$

$$\sqrt{2} = 1.41421356 \dots$$

$$0.1010010001 \dots$$

1. (Extension) Write

$\frac{1}{3}$ in

notacja kropkowa

dot notation

zaokrąglj

then round $\frac{1}{7}$

to 3 d.p. $0.\dot{3}$ and

0.143

2. (Challenge) Which

listed

ułamki dziesiętne

decimals

never settle into a

okres

repeating block?

Can one still be a

ułamek

fraction? π , $\sqrt{2}$,

0.101001...; yes:

$$0.\dot{3} = \frac{1}{3}$$