

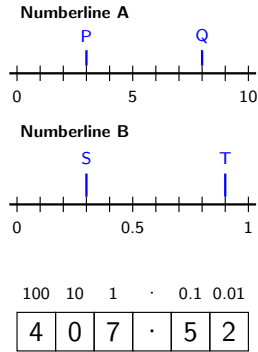
Number Sense: Starters

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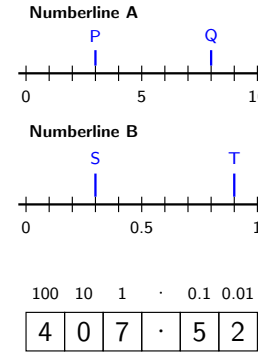
Number Sense: Starters

Starter 1



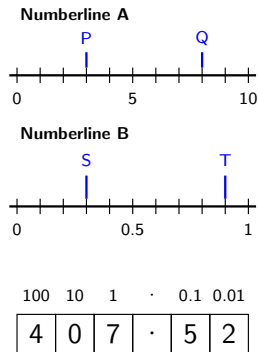
- On numberline A what numbers are marked by P and Q ?
- On numberline B what numbers are marked by S and T ?
- Mark 6 on Line A and 0.45 on Line B.
- Sam says $P = 4$, as it is the 4th mark. What has he done wrong?
- The chart shows 407.52. What is the 4 worth? And the 5?
- Work out 407.52×10 and $407.52 \div 10$.
- A numberline goes 3.6 to 3.7 in 10 equal steps. What is 3 steps along from 3.6?
- Use 7, 5, 4, 2 and a decimal point to make the largest number less than 100.

Starter 1



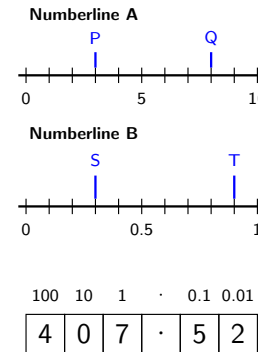
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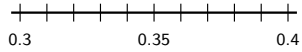


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Starter 2: Inequality Symbols & Ordering Decimals

- Fill in $<$ or $>$:
7 12
30 3
- In 0.405, what is the 4 worth?
- On the place value chart, which is bigger, 0.4 or 0.35? Why?
- Fill in $<$, $>$ or $=$
0.4 0.40,
0.6 0.06
- Mark 0.38 on Line A. Is it nearer 0.3 or 0.4?
- Order, smallest first: 0.5, 0.45, 0.405, 0.54
- True or false: more digits *after* the decimal point means a bigger number? Give an example/counter-example.
- Alfie says $0.45 > 0.5$ as $45 > 5$. Explain his mistake, then write a decimal between 0.4 and 0.405.

Line A



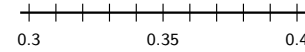
Place value chart

1	.	0.1	0.01	0.001
0	.	4		
0	.	3	5	
0	.	4	0	5

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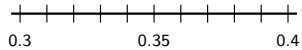
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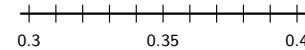
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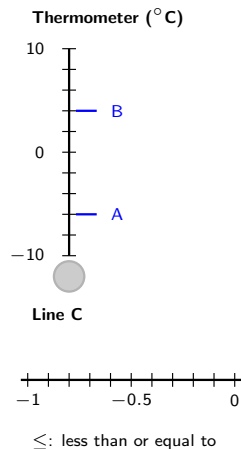
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Place value chart

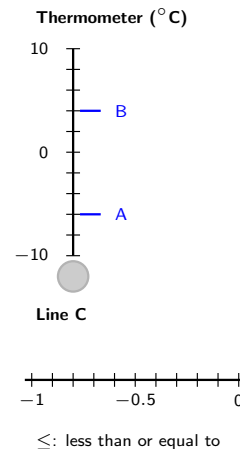
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Starter 3: Ordering Negative Numbers



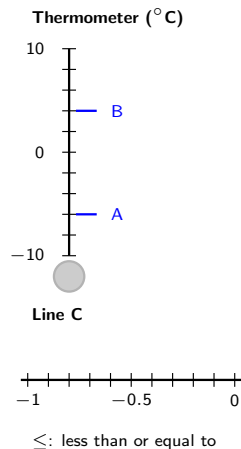
- Which is colder, 4°C or -4°C ?
- What is each mark on the thermometer worth? Write the temperatures at A and B.
- Which is colder, -3 or -8 ? Fill in: $-3 \text{ ? } -8$
- Order, smallest first: $-2, 5, -7, 0, -1$
- Mark -0.5 and -0.05 on Line C. Which is larger?
- Fill in $<$ or $>$: $-4.5 \text{ ? } -4.05$, $-0.3 \text{ ? } 0.03$
- (Extension) Order, smallest first: $-0.08, 0.7, -0.8, -0.75$
- (Challenge) List the integers n : $-3 \leq n < 2$. Write a number between -0.5 and -0.4 .

Starter 3: Ordering Negative Numbers



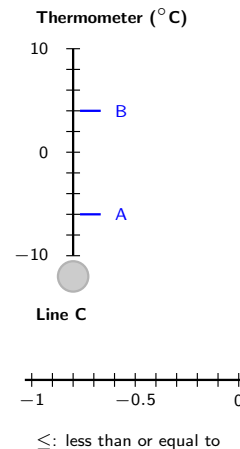
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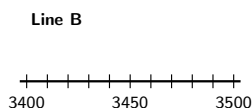
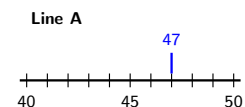
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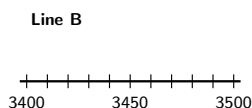
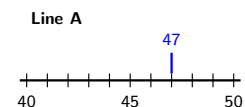
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Starter 4: Rounding Integers



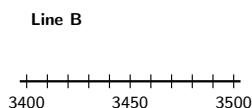
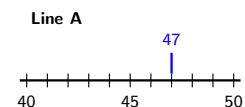
1. Fill in $<$ or $>$:
 $-6 ? -2$
2. Line A: is 47 nearer 40 or 50? Round it to the nearest 10.
3. Round to the nearest 10: 32, 85
4. Mark 3472 on Line B, then round it to the nearest 100.
5. Round 3472 to the nearest 10; to the nearest 1000.
6. Round 4950 to the nearest 100.
7. Zoe rounds 8449 to the nearest 100: $8449 \rightarrow 8450 \rightarrow 8500$. What is her mistake?
8. A number rounded to the nearest 10 is 250. What is the smallest it could be? The largest?

Starter 4: Rounding Integers



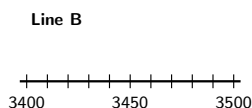
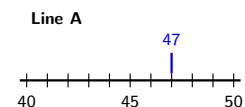
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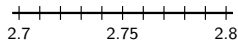
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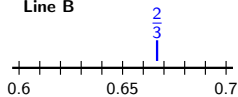
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Starter 5: Rounding Decimals & Never-Ending Decimals

Line A



Line B



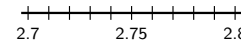
Never-ending decimals

$\frac{2}{3} = 0.6666\dots = 0.\dot{6}$
 $\frac{1}{3} = 0.142857142857\dots$
 $\pi = 3.14159265\dots$
 $\sqrt{2} = 1.41421356\dots$
 $0.1010010001\dots$

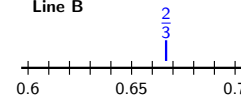
1. Round 4738 to the nearest 100.
2. Round to the nearest whole number: 4.6, 12.348
3. Mark 2.763 on Line A. Round it to 1 decimal place (d.p.).
4. Round to 1 d.p.: 4.62, 0.95. Why is 0.95 not 1?
5. Round 12.348 to 2 d.p., then to 1 d.p. Why not 12.4?
6. Line B shows $\frac{2}{3} = 0.\dot{6}$. Round it to 1 d.p. and 2 d.p.
7. (Extension) Write $\frac{1}{3}$ in dot notation, then round $\frac{1}{7}$ to 3 d.p.
8. (Challenge) Which listed decimals never settle into a repeating block? Can one still be a fraction?

Starter 5: Rounding Decimals & Never-Ending Decimals

Line A



Line B



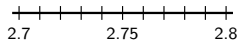
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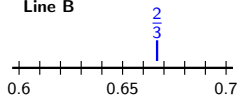
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Line B



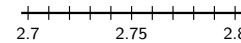
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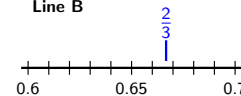
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Starter 5: Rounding Decimals & Never-Ending Decimals

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