



Draw To Represent The Value Of The Number

Number Sense Rubric: Proficient

- Pictures are clearly communicated and represent the value of the number
- Accurate

Grade 6 SNAP Number Sense

Draw to represent the value of the number (24.58):

Write to describe your picture

House = 10.00
Person = 0.01
Bicycle = 0.10

Draw to represent the value of the number (24.58):

Write to describe your picture

Large square = 10.00
Triangle = 1.00
Circle = 0.10
Small square = 0.01

Draw to represent the value of the number (2.32):

Write to describe your picture

Squares are ones
lines are tenths
x's are hundredths

Note:

- Students do not have to draw the value of the number in Base Ten. If they choose to make their own symbols, they need to include key or legend to show the value of each symbol. This key/legend can serve as their written explanation.

Goal:

- Students should represent the decimal number using symbols and clearly describe the strategy they used to create their picture.



Grade 6 SNAP Number Sense

Write The Number In Expanded Form

Number Sense Rubric: Proficient

- Accurately demonstrates the value of each digit

Write the number in expanded form (24.58):

$$20.00 + 4.00 + 0.50 + 0.08$$

Write the number in expanded form (16.32):

$$10 + 6 + .3 + .02$$
$$10 + 6 + \frac{3}{10} + \frac{2}{100}$$

This student demonstrated a deeper understanding by showing multiple ways to express parts of numbers (decimals and fractions)

Write the number in expanded form (16.32):

One ten plus six ones plus three tenths plus two hundredths

Note:

- Students usually show expanded for using an addition expression, but words are acceptable as well
- Students must show each place value separately (they can't be combined)

Goal:

- Students are able to accurately express a number as the sum of the place values of its digits



Grade 6 SNAP Number Sense

Create 3 Equations That Equal The Number

Number Sense Rubric: Proficient

- Accurately uses grade appropriate operations in all three equations

Create 3 equations that equal the number (24.58):

$$\begin{aligned}19.38 + 5.20 &= 24.58 \\ 2 \times 12 &= 24 + 0.58 \\ 24.58 - 23.28 &= 1.30 \\ + 13.28 &= 24.58\end{aligned}$$

Create 3 equations that equal the number (2.33):

$$\begin{aligned}1.16 \times 2 &= 2.32 \\ 2.19 + .13 &= 2.32 \\ 4.52 - 2.20 &= 2.32\end{aligned}$$

Create 3 equations that equal the number (6.58):

$$\begin{aligned}2 \times 3.29 &= 6.58 \\ 10 - 3.42 &= 6.58 \\ 5.17 + 1.41 &= 6.58\end{aligned}$$

Notes:

- In Grade 6, students should be able to add, subtract, multiply, and divide, so “grade appropriate” responses should include a variety of these operations (but not necessarily all of them).
- Adding numbers into empty place values (e.g. $1+.2=1.2$) is not grade appropriate, nor is adding 1 or 0 to a number (e.g. $6.78+0=6.78$ or $5.78+1=6.78$).
- The line between “grade appropriate” and “not” can be subjective. Use your understanding of the curriculum and your professional judgement to make that call.

Goal:

- Encourage students to find equations that challenge them, but are accurate



Grade 6 SNAP Number Sense

Write a Real-Life Example

Number Sense Rubric: Proficient

- Connection to a real-life example is provided
- Demonstrates understanding of the number value

Write a real-life example that shows the value of the number:

the number:
It took 24.58 seconds for me to run 2 lap around the gym

Write a real-life example that shows the value of the number:

the number:
I went to the store and got a sweater for 24.58\$

Write a real-life example that shows the value of the number:

the number:
I was testing how fast I can solve a 2x2 cube my last time was 21.10. I've been practicing for weeks to get a new score after a week I got ahead time
16.17
16.14
16.11
16.08
16.02
16.02 secs

Note:

- Examples with money, time, and distance are all great ways for students to demonstrate their understanding of decimal numbers

Goal:

- The example on the right shows insightful thinking and personal experience with decimal numbers. This kind of thinking is an excellent “next step.”



Grade 6 SNAP Number Sense

Counting Forward and Backwards

Number Sense Rubric: Proficient

- Complete and accurate

Count forward by (.4) from the number.

27.78
27.38
26.98
26.58
26.18
25.78
25.38
24.98
24.58
Count forwards by <u>0.4</u> from the number.

Count forward by (.4) from the number

18.72
18.42
18.12
17.82
17.52
17.22
16.92
16.62
16.32
Count forwards by <u>0.3</u> from the number.

Count backward by (.04) from the number.

24.58
24.54
24.50
24.46
24.42
24.38
24.34
24.30
24.26

Notes:

- One minor error in this section does not necessarily mean that a student can't be "Proficient". Check for place value understanding and a reasonable ability to add/subtract decimal numbers and score according to your judgement.

Goal:

- Students should be able to count forward and backward by tenths and hundredths from a variety of starting points.



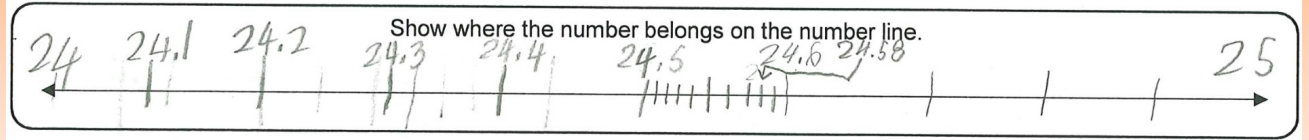
Number Line

Number Sense Rubric: Proficient

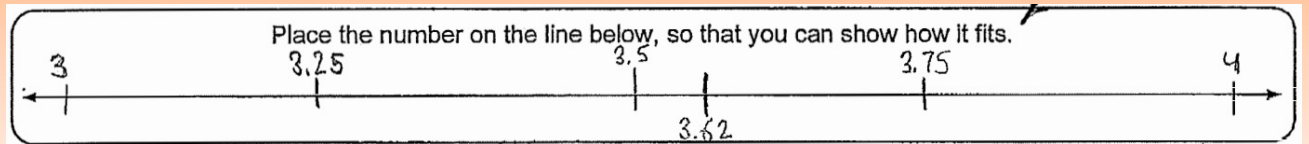
- Correct estimate of placement of number on provided number line with at least three benchmarks and appropriate endpoints.

Grade 6 SNAP Number Sense

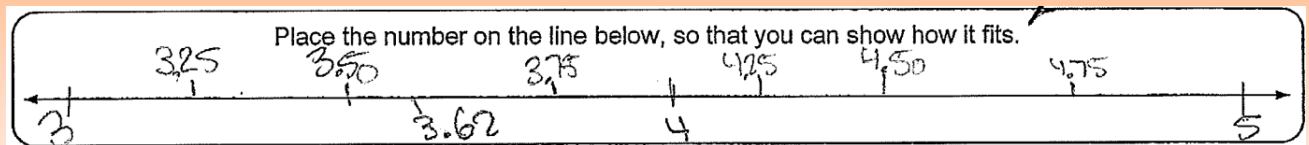
Show where the number (24.58) belongs on the number line.



Show where the number (3.62) belongs on the number line.



Show where the number (3.62) belongs on the number line.



Note:

- In Grade 6 and 7, students must provide their own endpoints; teachers are encouraged to remind students of this expectation.

Goal:

- Using a ruler or other measurement tool can help students to be accurate with the even spacing of their benchmarks and the placement of their number.