

Counting Significant Figures (page 1 of 5)



What are significant figures, and why do we need them?

4 images here: - 2 rulers with different increments - 2 scales showing different #s of decimal places.

	Student A	Student B	Student C
Ruler #1			
Ruler #2			
Scale #1			
Scale #2			

- ----- Dynamic text -----
- ------ Dynamic text ------
- ----- Dynamic text -----

"Dynamic text" provides incremental information referencing the images and table above.

(Potential voiceover)

Counting Significant Figures (page 2 of 5)



How do we identify the number of significant figures in a measurement?

• <u>First rule</u>: ----- Text -----

<u>Examples</u>: -----Value-------#sig figs----#sig figs----#sig figs--

Second rule:

Image of different measurements with the significant zeros highlighted.

Prompt - Why are the highlighted zeros significant? How can we spot them in a value?

Text box for student response.

Submit

Voiceover for this page?

Counting Significant Figures (page 2 of 5)

Back Next

(After "Submit")

How do we identify the number of significant figures in a measurement?

• First rule: ----- Text -----

Examples: -----Value-------#siq figs----#siq figs----#siq figs--

Second rule:

Image of different measurements with the significant zeros highlighted.

<u>Prompt</u> - Why are the highlighted zeros significant? How can we spot them in a value?

<u>Student response</u>: ----- From text box ----- (Key words highlighted)

Comparison: ----- Common student responses -----

----- Common student responses ------

----- Common student responses ------

Student compares & evaluates:

Good

Try again

Counting Significant Figures (page 3 of 5)



How do we identify the number of significant figures in a measurement?

- First rule: ----- Text -----
- Second rule: ----- Student response from page 2 (if 'Good' clicked) ------
- Third rule:

New set of measurements with the significant zeros highlighted.

<u>Prompt</u> - Why are the highlighted zeros significant? How can we spot them in a value?

Text box for student response.

Submit

Voiceover for this page?

Counting Significant Figures (page 3 of 5)

Back Next

(After "Submit")

How do we identif	<u>, the number of</u>	significant fig	gures in a	measurement?

- First rule: ----- Text -----
- Second rule: ----- Student response from page 2 (if 'Good' clicked) ------
- Third rule:

New set of measurements with the significant zeros highlighted.

<u>Prompt</u> - Why are the highlighted zeros significant? How can we spot them in a value?

Student response: ----- From text box ----- (Key words highlighted)

Comparison: ----- Common student responses ------

----- Common student responses ------

----- Common student responses ------

Student compares & evaluates:

Good

Try again

Counting Significant Figures (page 4 of 5)



How do we identify the number of significant figures in a measurement?

- First rule: ----- Text -----
- Second rule: ----- Student response from page 2 (if 'Good' clicked) ------
- Third rule: ----- Student response from page 3 (if 'Good' clicked) ------

<u>Check Yourself</u> - Identify the number of significant figures in each of the following:

- A. 0.0030700 has significant figures, according to rules
- B. 10,027,800 has significant figures, according to rules
- C. 5.00 has significant figures, according to rules .

Drop down menus that display the answers when clicked.

Choose your next step:

Practice

Main Menu

Advanced Counting

Counting Significant Figures (page 5 of 5)

Advanced Counting Tasks (optional):

- A. 10.00 g has four significant figures. Explain why. (Student response requested).
- B. ---- Scientific Notation ---- (Notes and examples).
- C. ---- Ambiguous zeros? ---- (Reference interactive table below).

Value	1 sig fig	2 sig figs	3 sig figs	5 sig figs
0.02000				
3000				

Choose your next step:

Practice

Main Menu

Back