Task Model 1	**Prompt Features:** The student is prompted to enter a power of 10 that is equivalent to a whole number.
Response Type: **Equation/Numeric**	**Stimulus Guidelines:**
	• Numbers reflect whole number powers of 10.
DOK Level 1	• Numbers are less than or equal to 1,000,000.
	TM1
5.NBT.A.2 Explain patterns in the number of zeroes of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	**Stimulus:** The student is presented with a multi-digit whole number that is a power of 10.
	Example Stem 1: Enter 10,000 as a power of 10.
	Example Stem 2: What power of 10 makes this expression equal to 5000?
	$5 \times 10^{\square}$
	Rubric: (1 point) The student enters the correct value (e.g., 10^4; 3).
Evidence Required: 1. The student represents powers of 10 by using whole-number exponents.	**Response Type:** Equation/Numeric
Tools: None	

Task Model 2a	**Prompt Features:** The student is prompted to identify the expanded form of a given decimal number (up to the thousandths).
Response Type: **Multiple Choice, single correct response**	**Stimulus Guidelines:**
	• Numbers are less than or equal to 1,000,000.
DOK Level 1	• Item difficulty can be adjusted via these example methods:
	○ The number of digits used in prompt
	○ The presence or absence of zeroes in the number
	○ The order in which place values are presented
5.NBT.A.3a Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).	**TM2a** **Stimulus:** The stem will present a decimal number written as a base-ten numeral.
	Example Stem: Which expression is equal to 473.923?
	A. $(4 \times 100) + (7 \times 10) + (3 \times 1) + (9 \times \frac{1}{1}) + (2 \times \frac{1}{10}) + (3 \times \frac{1}{100})$
	B. $(4 \times 100) + (7 \times 10) + (3 \times 1) + (9 \times 10) + (2 \times 100) + (3 \times 1,000)$
	C. $(4 \times 100) + (7 \times 10) + (3 \times 1) + (9 \times \frac{1}{10}) + (2 \times \frac{1}{100}) + (3 \times \frac{1}{1000})$
	D. $(4 \times 100,000) + (7 \times 10,000) + (3 \times 1,000) + (9 \times 100) + (2 \times 10) + (3 \times 1)$
Evidence Required: 2. The student reads and writes decimals to the thousandths using base-ten numerals, number names, and expanded form.	**Rubric:** (1 point) The student selects the correct expression (e.g., C).
	Response Type: Multiple Choice, single correct response
Tools: None	

Task Model 2b
 	
Response Type:
Equation/Numeric
 	
DOK Level 1
 	
5.NBT.A.3a
Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
 	
Evidence Required:
2. The student reads and writes decimals to the thousandths using base-ten numerals, number names, and expanded form.
 	
Tools: None
 	
Version 3 update:
Added example stem 3 to use decimals in expanded notation.
	Prompt Features: The student is prompted to enter a decimal (up to the thousandths) that is represented in expanded form.
	
	Stimulus Guidelines:
	  • Numbers are less than or equal to 1,000,000.
	  • Item difficulty can be adjusted via these example methods:
	     ○ The number of digits used in prompt
	     ○ The presence or absence of zeroes in the number
	     ○ The order in which place values are presented
	
	TM2b
	Stimulus: The student is presented with a decimal number in expanded form.
	
	Example Stem 1: Enter a number equal to the value of the expression.
	$(4 \times 100) + (7 \times 10) + (3 \times 1) + (9 \times \frac{1}{10}) + (2 \times \frac{1}{100}) + (3 \times \frac{1}{1000})$
	
	Example Stem 2: Enter a number equal to the value of the expression.
	$(4 \times 100) + (3 \times 1) + (2 \times \frac{1}{100}) + (7 \times 10) + (9 \times \frac{1}{10}) + (3 \times \frac{1}{1000})$
	
	Example Stem 3: Enter a number equal to the value of the expression.
	
	$(7 \times 10) + (4 \times 1) + (5 \times 0.1) + (3 \times 0.01)$
	
	Rubric: (1 point) The student correctly enters the decimal number that is equivalent to the expression (e.g., 473.923; 473.923; 74.53).
	
	Response Type: Equation/Numeric

| Task Model 2d

Response Type:
Matching Tables

DOK Level 2

5.NBT.A.3a
Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).

Evidence Required:
2. The student reads and writes decimals to the thousandths using base-ten numerals, number names, and expanded form.

Tools: None | **Prompt Features:** The student is prompted to determine whether various expansions of decimal numbers from place value number names are equal to the decimal number.

Stimulus Guidelines:
• Numbers are up to the thousandths place.
• Numbers are less than or equal to 1,000,000.
• Item difficulty can be adjusted via this example method:
   o Place values are presented in descending, ascending, or random order.

TM2d
Stimulus: The student will be presented with a decimal number in numeric form.

Example Stem: Determine whether each expression is equivalent to 638.4. Select Yes or No for each expression. |

	Yes	No
63 tens + 8 ones + 4 tenths		
63 hundreds + 8 ones + 4 tenths		
6 hundreds + 3 tens + 84 tenths		
6 hundreds + 38 ones + 4 tenths		

Rubric: (1 point) The student identifies equal expansions for the number (e.g., Y, N, Y, Y).

Response Type: Matching Tables

| Task Model 3a

Response Type:
Matching Table

DOK Level 2

5.NBT.A.3b
Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

Evidence Required:
3. The student compares two decimals to the thousandths by using >, =, and < symbols.

Tools: None

Version 3 Update:
Changed TM3a from an equation/numeric response type to a matching table response type. Updated the stimulus and stem to match the new format. Retired TM3b. | **Prompt Features:** The student is prompted to compare two pairs of decimals.

Stimulus Guidelines:
• Decimals can be to the thousandths place.
• Numbers are less than or equal to 1,000,000.
• Allowable symbols are >, =, and <.
• Item difficulty may be adjusted via this example method:
　○ The numbers selected for each comparison

TM3a
Stimulus: The student is presented with two pairs of decimals and directed to compare them using (<, >, or =).

Example Stem:
Select the symbol (<, >, or =) that correctly compares each pair of numbers. |

	<	>	=
0.03 □ 0.3			
187.36 □ 187.35			

Rubric: (1 point) The student selects the correct symbols (e.g., <, >).

Response Type: Matching Table

Task Model 3c
 	
Response Type: Multiple Choice, single correct response
 	
DOK Level 2
 	
5.NBT.A.3b
Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
 	
Evidence Required:
3. The student compares two decimals to the thousandths by using >, =, and < symbols.
 	
Tools: None
	Prompt Features: The student is prompted to identify a decimal that correctly completes a given comparison.
	
	Stimulus Guidelines:
	• Decimals can be to the thousandths place.
	• Numbers are less than or equal to 1,000,000.
	• Allowable symbols are >, =, and <.
	• Item difficulty may be adjusted via this example method:
	   ○ The numbers selected for each comparison
	
	TM3c
	Stimulus: The student is presented with an incomplete comparison using decimals and a comparison symbol of >, =, or <.
	
	Example Stem: Which number makes the comparison true?
	
	3.45 < □
	
	  A. 3.249
	  B. 3.38
	  C. 3.436
	  D. 3.47
	
	Rubric: (1 point) The student selects the correct number (e.g., D).
	
	Response Type: Multiple Choice, single correct response

Task Model 3d	**Prompt Features:** The student is prompted to identify correct comparisons of decimal numbers.
Response Type: Matching Tables **DOK Level 2** **5.NBT.A.3b** Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. **Evidence Required:** 3. The student compares two decimals to the thousandths by using >, =, and < symbols. **Tools:** None	**Stimulus Guidelines:** • Decimals can be to the thousandths place. • Numbers are less than or equal to 1,000,000. • Allowable symbols are >, =, and <. • Item difficulty may be adjusted via this example method: ○ The numbers selected for each comparison **TM3d** **Stimulus:** The answer choices present three unique decimal number comparisons using >, =, and <. **Example Stem:** Determine if each comparison is true or false. Select True or False for each comparison.

	True	**False**
4.3 = 4.300		
48.2 > 4.829		
56.78 < 56.760		

Rubric: (1 point) The student correctly selects True or False for each comparison (e.g., T, T, F).

Response Type: Matching Tables

| Task Model 4

Response Type:
Equation/Numeric

DOK Level 1

5.NBT.A.4
Use place value understanding to round decimals to any place.

Evidence Required:
4. The student rounds decimals to the nearest whole number, tenth, hundredth or thousandth.

Tools: None | **Prompt Features:** The student is prompted to enter a number that is the result of rounding a multi-digit decimal number to a given place value.

Stimulus Guidelines:
• Decimals can be to the ten-thousandths place.
• Number may be rounded to any whole or decimal place value, to the thousandth place.
• Numbers are less than or equal to 1,000,000.
• Item difficulty may be adjusted via these example methods:
   o Include numbers where the digit in the rounded place value changes as well as the digit(s) in the adjacent place values(s) to the left.
     ▪ e.g., 1.998 rounded to the nearest hundredth is 2.00.
   o Number presented has more or less places (length of the decimal number)

TM4
Stimulus: The student is presented with a multi-digit decimal number.

Example Stem: Round 45.643 to the nearest hundredth. Enter your answer in the response box.

Rubric: (1 point) The student enters the correct value (e.g., 45.64).

Response Type: Equation/Numeric |