Varied Fluency Step 10: Decimal Sequences

National Curriculum Objectives:

Mathematics Year 5: (5F10) <u>Solve problems involving number up to 3dp</u> Mathematics Year 5: (5M9a) <u>Use all four operations to solve problems involving measure</u> [for example, length, mass, volume, money] using decimal notation, including scaling

Differentiation:

Developing Questions to support calculating decimal sequences. Decimal places involve tenths and hundredths. Sequences involve either addition or subtraction. Expected Questions to support calculating decimal sequences. Decimal places involve tenths, hundredths and thousandths. Sequences involve either addition or subtraction. Greater Depth Questions to support calculating decimal sequences. Decimal places involve tenths, hundredths and thousandths. Sequences may involve addition and subtraction of differing values in an increasing or decreasing pattern.

More <u>Year 5 Decimals</u> resources.

Did you like this resource? Don't forget to <u>review</u> it on our website.

classroomsecrets.co.uk

CLASSROOM Secrets © Classroom Secrets Limited 2019

Varied Fluency – Decimal Sequences – Teaching Information



Decimal Sequences

<u>Deema bequences</u>					<u>Deemar Jequences</u>						
1a. Use the number line to find the missing numbers in the sequence.				1b. Use the number line to find the missing numbers in the sequence.							
				0.5 1.25 2 4.25 6.5							
VF					VF						
2a. Look at the sequences below.				2b. Look at the sequences below.							
0.4	0.6	0.8	1	1.2	1.5	1.3	1.1	0.9	0.7		
0.2	0.7	1.2	1.7	2.2	4.5	3.9	3.3	2.7	2.1		
0.25	0.38	0.51	0.64	0.77	1	0.89	0.78	0.67	0.56		
terms in 3a.	the sequ The f The	irst term i rule is + 0	is 2.3 0.09	VF	Write a rule for each and find the next 3 terms in the sequences.						
Fine	•	equence		ine	Find the 4 th , 6 th and 10 th term of the sequence.						
企				VF	佥				V	VF	
4a. The 1 st term is 0.95 The 3 rd term is 0.75 The 5 th term is 0.55 Find the rule of this sequence.				4b. The 2 nd term is 1.35 The 4 th term is 1.85 The 6 th term is 2.35 Find the rule of this sequence.							
企				VF	企					VF	
				-	acrat						

classroomsecrets.co.uk

CLASSROOM Secrets © Classroom Secrets Limited 2019

Varied Fluency – Decimal Sequences – Year 5 Developing

<u>Decimal Sequences</u>

Decimal Sequences

Sa. Use the number line to find the missing numbers in the sequence. 5b. Use the number line to find the missing numbers in the sequence. 132 1.32 1.12 0.92 0.92 132 1.22 0.92 0.92 0.195 132 0.92 0.92 0.195 0.195 132 0.22 0.92 0.195 0.195 140 0.92 0.93 0.9 2.622 7.98 6.99 6 5.01 4.02 0.99 0.96 0.93 0.9 0.87 0.043 0.11 0.177 0.244 0.311 0.892 0.885 0.878 0.871 0.864 9.239 9.109 8.979 8.849 8.719 Write a rule for each and find the next 3 terms in the sequences. write a rule for each and find the next 3 terms in the sequences. wr 7a. 7b. The first term is 0.452 The rule is - 0.005 Find the 2 nd , 4 th and 7 th term of the sequence. find the 2 nd , 4 th and 7 th term of the sequence. 8b. The 5 th term is 3.98. The 10 th term is 3.93. 8a. The 9 th term is 7.633. The 15 th term is 3.88. </th <th><u>Decinial seque</u></th> <th colspan="6"><u>Decinial sequences</u></th>	<u>Decinial seque</u>	<u>Decinial sequences</u>						
Image: Second		•						
6a. Look at the sequences below. 6b. Look at the sequences below. 2.53 2.553 2.576 2.599 2.622 7.98 6.99 6 5.01 4.02 0.99 0.96 0.93 0.9 0.87 0.043 0.11 0.177 0.244 0.311 0.892 0.885 0.878 0.871 0.864 9.239 9.109 8.979 8.849 8.719 Write a rule for each and find the next 3 terms in the sequences. Write a rule for each and find the next 3 terms in the sequences. V	1.32 1.22 1.12 0.92	0.125 0.195						
2.53 2.553 2.576 2.599 2.622 7.98 6.99 6 5.01 4.02 0.99 0.96 0.93 0.9 0.87 0.043 0.11 0.177 0.244 0.311 0.892 0.885 0.878 0.871 0.864 9.239 9.109 8.979 8.849 8.719 Write a rule for each and find the next 3 terms in the sequences. Write a rule for each and find the next 3 terms in the sequences. Write a rule for each and find the next 3 10.043 11 0.177 0.244 0.311 7a. 7a. 7b. 7b. 7b. 7b. 7b. 7b. 7b. The first term is 0.23 The rule is + 0.46 Find the 2 nd , 4 th and 7 th term of the sequence. 5 th and 7 th term of the sequence. Sequence. <th></th> <td colspan="6">VF</td>		VF						
0.99 0.93 0.9 0.87 0.043 0.11 0.177 0.244 0.311 0.892 0.885 0.878 0.871 0.864 9.239 9.109 8.979 8.849 8.719 Write a rule for each and find the next 3 terms in the sequences. Write a rule for each and find the next 3 Write a rule for each and find the next 3 Write a rule for each and find the next 3 7a. 7a. 7b. The first term is 0.23 The first term is 0.452 The rule is - 0.005 Find the 2 nd , 4 th and 7 th term of the sequence. Stand 7 th term of the sequence. Stand 7 th term of the sequence. Stand 7 th term of the sequence. 8a. The 3 rd term is 7.603. The 5 th term is 3.98. The 10 th term is 3.93. The 10 th term is 3.88. Find the rule of this sequence. Stand 7 th term is 3.88. Find the rule of this sequence. Stand 7 th term is 3.88.	6a. Look at the sequences be	6b. Look at the sequences below.						
0.892 0.885 0.878 0.871 0.864 9.239 9.109 8.979 8.849 8.719 Write a rule for each and find the next 3 terms in the sequences. Write a rule for each and find the next 3 terms in the sequences. Write a rule for each and find the next 3 terms in the sequences. Image: terms in the sequences. VF Image: terms in the sequences. VF 7a. 7b. The first term is 0.23 The rule is + 0.46 The first term is 0.452 The rule is - 0.005 Image: term of the sequence. Find the 2 nd , 4 th and 7 th term of the sequence. Image: term is 7.603. The 3 rd term is 7.603. The 5 th term is 3.98. The 10 th term is 3.93. The 9 th term is 7.693. The 9 th term is 7.783. 8b. Image: term is 3.98. The 15 th term is 3.88. Find the rule of this sequence. Image: term is 3.88. Image: term is 3.88. Image: term is 3.88.	2.53 2.553 2.576 2.	599 2.622	7.98	6.99	6	5.01	4.02	
Write a rule for each and find the next 3 terms in the sequences. Write a rule for each and find the next 3 terms in the sequences. Image: Write a rule for each and find the next 3 terms in the sequences. Image: Write a rule for each and find the next 3 terms in the sequences. Image: Write a rule for each and find the next 3 terms in the sequences. Image: Write a rule for each and find the next 3 terms in the sequences. Image: Write a rule for each and find the next 3 terms in the sequences. Image: Write a rule for each and find the next 3 terms in the sequences. Image: Tau of the sequence is 0.23 The first term is 0.452 Image: Write is - 0.005 Image: Tau of the rule is + 0.46 The first term is 0.452 Image: The rule is - 0.005 Find the 2 nd , 4 th and 7 th term of the sequence. Find the 3 rd , 5 th and 7 th term of the sequence. Image: Secure content is 1.60 Image: Secure content is 1.60 Find the 3 rd , 5 th and 7 th term of the sequence. Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 Image: Secure content is 1.60 </td <th>0.99 0.96 0.93 0</th> <th>0.9 0.87</th> <td>0.043</td> <td>0.11</td> <td>0.177</td> <td>0.244</td> <td>0.311</td>	0.99 0.96 0.93 0	0.9 0.87	0.043	0.11	0.177	0.244	0.311	
terms in the sequences. terms in the sequences. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constraint of the sequence. Image: constra	0.892 0.885 0.878 0.	871 0.864	9.239	9.109	8.979	8.849	8.719	
7a. 7b. The first term is 0.23 The rule is + 0.46 7b. Find the 2 nd , 4 th and 7 th term of the sequence. The first term is 0.452 The rule is - 0.005 Find the 2 nd , 4 th and 7 th term of the sequence. Find the 3 rd , 5 th and 7 th term of the sequence. Image: Sequence of the sequence of the sequence. Image: Sequence of the sequence of the sequence. Image: Sequence of the sequence of the sequence. Image: Sequence of the sequence of the sequence. Image: Sequence of the sequence of the sequence. Image: Sequence of the sequence. Image: Sequence of the sequence of the sequence. Image: Sequence of the sequence. Image: Sequence of the sequence of the sequence. Image: Sequence of the sequence.								
The first term is 0.23 The rule is + 0.46 The first term is 0.452 The rule is - 0.005 Find the 2 nd , 4 th and 7 th term of the sequence. Find the 3 rd , 5 th and 7 th term of the sequence. Image: Sequence of the sequence of the sequence of the sequence. Image: Sequence of the sequence of the sequence of the sequence of the sequence. Image: Sequence of the sequence. Image: Sequence of the sequence of the sequence of the sequence of the sequence. Image: Sequence of the sequence of the sequence of the sequence of the sequence. Image: Sequence of the sequence. Image: Sequence of the sequence of		VF						
The rule is + 0.46 The rule is - 0.005 Find the 2 nd , 4 th and 7 th term of the sequence. Find the 3 rd , 5 th and 7 th term of the sequence. Image: Sequence in the sequence in the sequence. Image: Sequence in the sequence in the sequence. Image: Sequence in the sequence in the sequence. Image: Sequence in the sequence in the sequence. Image: Sequence in the	7a.		7b.					
sequence. sequence. Image: Sequence of the sequence. Image: Sequence of the sequence of								
8a. 8b. The 3 rd term is 7.603. The 5 th term is 3.98. The 6 th term is 7.693. The 10 th term is 3.93. The 9 th term is 7.783. The 15 th term is 3.88. Find the rule of this sequence. Find the rule of this sequence.								
The 3rd term is 7.603. The 6th term is 7.693. The 9th term is 7.783.The 5th term is 3.98. The 10th term is 3.93. The 15th term is 3.88.Find the rule of this sequence.Find the rule of this sequence.	☆	VF	合				VF	
The 9th term is 7.783.The 15th term is 3.88.Find the rule of this sequence.Find the rule of this sequence.	The 3 rd term is 7.60	The 5 th term is 3.98.						
	Find the rule of this seq	Find the rule of this sequence.						
		VF					VF	

classroomsecrets.co.uk

© Classroom Secrets Limited 2019

Varied Fluency – Decimal Sequences – Year 5 Expected

Decimal Sequences Decimal Sequences 9a. Use the number line to find the 9b. Use the number line to find the missing missing numbers in the sequence. numbers in the sequence. 7.431 7.491 7.611 0.367 0.289 VF VF 10a. Look at the sequences below. 10b. Look at the sequences below. 0.612 0.085 0.078 0.071 0.9 0.708 0.064 0.057 0.804 0.516 12.432 12.4 12.368 12.336 12.304 0.36 0.38 0.42 0.56 0.48 0.543 0.643 0.843 1.143 1.543 7.345 7.245 7.045 6.745 6.345 Write a rule for each and find the next 3 Write a rule for each and find the next 3 terms in the sequences. terms in the sequences. VF VF 11a. 11b. The first term is 12.965 The first term is 1.954 The rule is – 2.9 The rule is -0.032Find the 4th, 6th and 8th term of the Find the 4th, 9th and 11th term of the sequence. sequence. VF VF 12a. 12b. The 6th term is 0.543 The 6th term is 13.944 The 9th term is 0.567 The 13th term is 13.965 The 12th term is 0.591 The 20th term is 13.986 Find the rule of this sequence. Find the rule of this sequence. VF

classroomsecrets.co.uk



Varied Fluency – Decimal Sequences – Year 5 Greater Depth

Varied Fluency Decimal Sequences

Developing

1a. 3, 6, 7.5 2a. 1.4, 1.6, 1.8 (Rule = + 0.2) 2.7, 3.2, 3.7 (Rule = + 0.5) 0.9, 1.03, 1.16 (Rule = + 0.13) 3a. 2.48, 2.66, 2.84 4a. The rule is - 0.1

Expected

5a. 1.02, 0.82, 0.72, 0.62 6a. 2.645, 2.668, 2.691 (Rule = + 0.023) 0.84, 0.81, 0.78 (Rule = - 0.03) 0.857, 0.85, 0.843 (Rule = - 0.007) 7a. 0.69, 1.61, 2.99 8a. The rule is + 0.03

<u>Greater Depth</u>

9a. 7.551, 7.671, 7.731 10a. 0.05, 0.043, 0.036 (Rule = - 0.007) 12.272, 12.24, 12.208 (Rule = - 0.032) 2.043, 2.643, 3.343 (Rule = the difference increases by 0.1 each term). 11a. 4.265, -1.535, -7.335 12a. The rule is + 0.008

Varied Fluency Decimal Sequences

Developing

1b. 2.75, 3.5, 5, 5.75, 7.25 2b. 0.5, 0.3, 0.1 (Rule = - 0.2) 1.5, 0.9, 0.3 (Rule = - 0.6) 0.45, 0.34, 0.23 (Rule = - 0.11) 3b. 1.05, 1.25, 1.65 4b. The rule is + 0.25

Expected

5b. 0.265, 0.335, 0.405 6b. 3.03, 2.04, 1.05 (Rule = - 0.99) 0.378, 0.445, 0.512 (Rule = + 0.067) 8.589, 8.459, 8.329 (Rule = - 0.13) 7b. 0.442, 0.432, 0.422 8b. The rule is - 0.01

Greater Depth

9b. 0.406, 0.328, 0.25, 0.211
10b. 0.42, 0.324, 0.228 (The rule is - 0.096) 0.66, 0.78, 0.92 (The rule is the difference increases by 0.02 each term). 5.845, 5.245, 4.545 (Rule = the difference decreases by 0.1 each term).
11b. 1.858, 1.698, 1.634
12b. The rule is + 0.003



© Classroom Secrets

Varied Fluency – Decimal Sequences ANSWERS