


## Subtraction Prior Learning Assessment Question 2:

**Objective:** I can subtract tens from three digit numbers.

**NAS 1:** add and subtract numbers mentally, including:  
a three-digit number and tens

### Assessment Question 2:

Prior Learning:

	<b>Question 2:</b> I can subtract tens from a 3 digit number.	I feel
<p>Work out the answer to these subtraction sums.</p> <p>a) <math>125 - 10 =</math> <input type="text"/></p> <p>b) <math>263 - 10 =</math> <input type="text"/></p> <p>c) <math>159 - 20 =</math> <input type="text"/></p> <p>d) <math>206 - 10 =</math> <input type="text"/></p> <p>e) <math>301 - 10 =</math> <input type="text"/></p> <p>f) <math>211 - 20 =</math> <input type="text"/></p>		

### Input:

Model and discuss how ten can be subtracted from a 3 digit number. Using a place value chart, show the children what happens to the tens digit when ten is subtracted ( for example  $243 - 10$ ). Keep subtracting ten to show the children that it is only the tens digit that is changing. Why? This can also be shown alongside objects grouped in tens, hundreds and ones to show the children that we do not need to take away individual ones, that a group of ten can be subtracted. Model to the children what happens when we subtract ten from 203. What can I do? Which digit do I need to place here? How do I know this? Why is the hundred digit changing? Some children may need to see this alongside objects that are grouped in hundreds, tens and ones to visually see that we need to open/break apart a hundred to subtract ten. Once the children show understanding here, model subtracting twenty and thirty from 3 digit numbers. What happens to the digits now?

Partner talk: Which digits stay the same? Why? When does the ten digit change? How do you know? Which digit will we need to look at when we subtract ten? Why? Can you give me an example of a sum for subtracting ten? What will the answer be? How did you work it out?

## Practice Activities

**Purple Practice:** most suited for children who show misconceptions in question 2 a, b and c in the prior learning assessment.

The purple activity will support children who are still securing counting back with numbers beyond 100. The children are provided with a task sheet where they are required to subtract ten from each number block and write the answer beneath this in the box provided. Additionally the children are provided with a place value chart or hundred squares on the purple resource sheets to encourage the children to spot what happens to the tens digit when ten is subtracted from a 3 digit number.

Once the children show confidence with subtracting ten, the remaining rows of blocks on the task sheet encourage the children to explore subtracting multiples of ten.

**Green Practice:** most suited for children who have demonstrate errors in Question 2 d, e and f and need to secure crossing the hundred boundary when ten or multiples of ten are subtracted.

The green activity is presented in the same format as the purple activity, however the children are presented with amounts where crossing the hundred boundary is required when ten or multiples of ten are subtracted.

**Yellow Practice** most suited for children who can count back in tens and show accuracy in Question 2 of the prior learning assessment.

Practical: for this activity, use the spinners on the resource sheets for the children to play a game with a partner. The children are to be given a starting number such as 100, 150, 250. They are to use the spinners to subtract an amount from the starting number. Then they are to spin the spinner again and subtract this from the amount they now have. The children are to keep subtracting until they can get as close to zero as possible. The winner is the child with the lowest possible amount. Encourage the children to select mental subtraction methods. They may need to use a white board to jot down the amounts they have created after each turn. This activity provides the children with the opportunity to apply subtracting groups of ten and ones from numbers mentally and begin to partition amounts when subtracting.

## **Mastery Fluency**

For this activity the children are provided with number sequences to apply their knowledge of mentally subtracting ones and tens. The children should be encouraged to spot the pattern and the gaps between each number. As the sequences progress, the

difficulty increases. The children also are required to cross boundaries of ten and hundred in some of the sequences.

### Key questions:

- What pattern do you notice?
- What is the next number in the sequence?
- This number is missing, so how will you work out what needs to be placed in this box?
- How can you check this answer is correct?

### Answers :

#### Purple:

1) Subtract 10 from each block.

146	198	110	114	296
↓	↓	↓	↓	↓
136	188	100	104	186

2) Subtract 20 from each block.

269	151	287	325	243
↓	↓	↓	↓	↓
249	131	267	305	223

3) subtract 30 from each block.

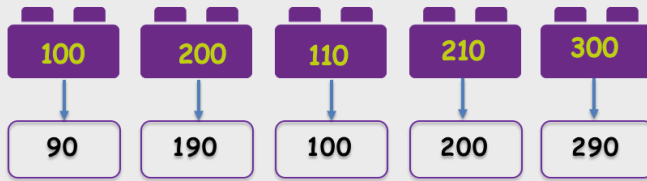
372	251	190	234	367
↓	↓	↓	↓	↓
342	221	160	204	337

4) Subtract 40 to each block.

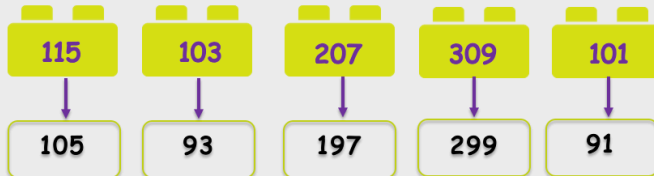
198	250	356	278	140
↓	↓	↓	↓	↓
158	210	316	238	100

Green :

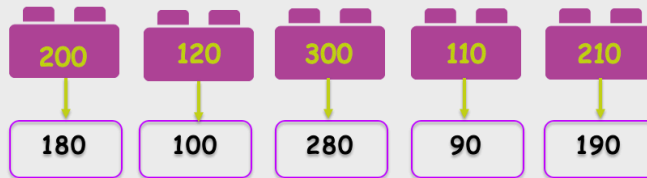
1) Subtract 10 from each block.



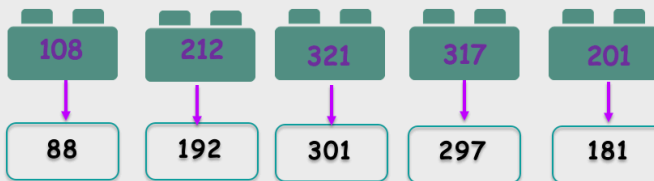
2) Subtract 10 from each block.



3) Subtract 20 from each block.













4) Subtract 20 from each block.













## Mastery

1)	110	109	108	107	106	105
2)	295	294	293	292	291	290
3)	97	98	99	100	101	102
4)	298	299	300	301	302	303
5)	120	110	100	90	80	70
6)	125	115	105	95	85	75
7)	330	310	290	270	250	230
8)	308	306	304	302	300	298

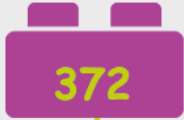


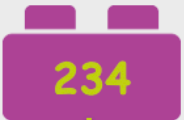
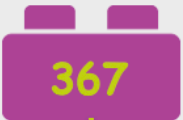





1) Subtract 10 from each block.

 146	 198	 110	 114	 296
				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



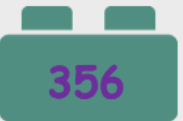







2) Subtract 20 from each block.

 269	 151	 287	 325	 243
				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

3) Subtract 30 from each block.

 372	 251	 190	 234	 367
				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

4) Subtract 40 to each block.

 198	 250	 356	 278	 140
				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200






201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300








ones	
tens	
hundreds	

LO: I can subtract tens and multiples of ten from 3 digit numbers.  
(crossing boundaries)



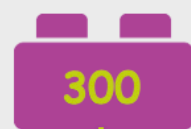


1) Subtract 10 from each block.

				
↓	↓	↓	↓	↓
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>






2) Subtract 10 from each block.

				
↓	↓	↓	↓	↓
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

3) Subtract 20 from each block.

				
↓	↓	↓	↓	↓
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

4) Subtract 20 from each block.

				
↓	↓	↓	↓	↓
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>





Look at each number sequence. Can you work out the missing numbers?

- 1)
 

110	109	108	107		
-----	-----	-----	-----	--	--
- 2)
 

295	294	293			
-----	-----	-----	--	--	--
- 3)
 

			100	101	102
--	--	--	-----	-----	-----
- 4)
 

			301	302	303
--	--	--	-----	-----	-----
- 5)
 

120	110			80	70
-----	-----	--	--	----	----
- 6)
 

125	115	105			
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- 7)
 

330	310				230
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- 8)
 

308	306	304			
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