

L.O: To calculate using addition and subtraction.

Choose 1 set of questions to complete for each operation (+ and -) – remember to challenge yourself!

Lay these calculations out neatly in your exercise book:

Addition

<u>Easier</u>	<u>Medium</u>	<u>Trickier</u>																																																																																
$273 + 126$ $342 + 233$ $64 + 29$ $82 + 47$ $159 + 24$	$429 + 63$ $244 + 291$ $647 + 128$ $356 + 252$ $575 + 319$	$474 + 383$ $607 + 285$ $732 + 279$ $430 + 399$ (calculate using mental method) Filling in the missing digits: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th><th>H</th><th>T</th><th>O</th><th></th><th></th><th>H</th><th>T</th><th>O</th><th></th> </tr> </thead> <tbody> <tr> <td></td><td>2</td><td>—</td><td>4</td><td></td><td></td><td>—</td><td>8</td><td>—</td><td></td> </tr> <tr> <td>+</td><td>—</td><td>3</td><td>—</td><td></td><td>+</td><td>1</td><td>—</td><td>2</td><td></td> </tr> <tr> <td></td><td colspan="3"><hr/></td><td></td><td></td><td colspan="3"><hr/></td><td></td> </tr> <tr> <td></td><td>5</td><td>5</td><td>9</td><td></td><td></td><td>1</td><td></td><td></td><td></td> </tr> <tr> <td></td><td colspan="3"><hr/></td><td></td><td></td><td colspan="3"><hr/></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td>4</td><td>9</td><td></td> </tr> <tr> <td></td><td colspan="3"><hr/></td><td></td><td></td><td colspan="3"><hr/></td><td></td> </tr> </tbody> </table>		H	T	O			H	T	O			2	—	4			—	8	—		+	—	3	—		+	1	—	2			<hr/>					<hr/>					5	5	9			1					<hr/>					<hr/>										8	4	9			<hr/>					<hr/>			
	H	T	O			H	T	O																																																																										
	2	—	4			—	8	—																																																																										
+	—	3	—		+	1	—	2																																																																										
	<hr/>					<hr/>																																																																												
	5	5	9			1																																																																												
	<hr/>					<hr/>																																																																												
						8	4	9																																																																										
	<hr/>					<hr/>																																																																												

Subtraction

<u>Easier</u>	<u>Medium</u>	<u>Trickier</u>																																																												
$57 - 22$ $89 - 73$ $368 - 45$ $256 - 141$ $425 - 214$	$562 - 228$ $354 - 116$ $609 - 374$ $438 - 294$ $721 - 290$	$583 - 346$ $709 - 434$ $642 - 293$ $800 - 249$ (calculate using a numberline) Fill in the missing digits: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th><th>H</th><th>T</th><th>O</th><th></th><th></th><th>H</th><th>T</th><th>O</th><th></th> </tr> </thead> <tbody> <tr> <td></td><td>—</td><td>9</td><td>—</td><td></td><td></td><td>6</td><td>—</td><td>—</td><td></td> </tr> <tr> <td>-</td><td>3</td><td>—</td><td>6</td><td></td><td>-</td><td>—</td><td>1</td><td>9</td><td></td> </tr> <tr> <td></td><td colspan="3"><hr/></td><td></td><td></td><td colspan="3"><hr/></td><td></td> </tr> <tr> <td></td><td>2</td><td>5</td><td>3</td><td></td><td></td><td>4</td><td>1</td><td>4</td><td></td> </tr> <tr> <td></td><td colspan="3"><hr/></td><td></td><td></td><td colspan="3"><hr/></td><td></td> </tr> </tbody> </table>		H	T	O			H	T	O			—	9	—			6	—	—		-	3	—	6		-	—	1	9			<hr/>					<hr/>					2	5	3			4	1	4			<hr/>					<hr/>			
	H	T	O			H	T	O																																																						
	—	9	—			6	—	—																																																						
-	3	—	6		-	—	1	9																																																						
	<hr/>					<hr/>																																																								
	2	5	3			4	1	4																																																						
	<hr/>					<hr/>																																																								

Apply

<p>Look at the calculations below</p> <table style="width: 100%;"> <tr> <td>a) $\begin{array}{r} 124 \\ + 233 \\ \hline \end{array}$</td> <td>b) $\begin{array}{r} 644 \\ + 172 \\ \hline \end{array}$</td> <td>c) $\begin{array}{r} 366 \\ + 277 \\ \hline \end{array}$</td> </tr> <tr> <td>d) $\begin{array}{r} 579 \\ + 221 \\ \hline \end{array}$</td> <td>e) $\begin{array}{r} 791 \\ + 163 \\ \hline \end{array}$</td> <td>f) $\begin{array}{r} 567 \\ + 233 \\ \hline \end{array}$</td> </tr> </table> <p>Without calculating the answers: Which calculations have no exchanges? Which calculations have one exchange? Which calculations have two exchanges? Which calculation has the greatest answer? Which calculation has the smallest answer?</p>	a) $\begin{array}{r} 124 \\ + 233 \\ \hline \end{array}$	b) $\begin{array}{r} 644 \\ + 172 \\ \hline \end{array}$	c) $\begin{array}{r} 366 \\ + 277 \\ \hline \end{array}$	d) $\begin{array}{r} 579 \\ + 221 \\ \hline \end{array}$	e) $\begin{array}{r} 791 \\ + 163 \\ \hline \end{array}$	f) $\begin{array}{r} 567 \\ + 233 \\ \hline \end{array}$	<p>Sam has completed these calculations, but he is incorrect. Explain the errors he has made.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>$\begin{array}{r} 325 \\ + 247 \\ \hline 562 \end{array}$</td> <td>$\begin{array}{r} 355 \\ - 247 \\ \hline 112 \end{array}$</td> </tr> </table> <p>Keywords: Commutative, hundred, tens, ones, exchange</p>	$\begin{array}{r} 325 \\ + 247 \\ \hline 562 \end{array}$	$\begin{array}{r} 355 \\ - 247 \\ \hline 112 \end{array}$
a) $\begin{array}{r} 124 \\ + 233 \\ \hline \end{array}$	b) $\begin{array}{r} 644 \\ + 172 \\ \hline \end{array}$	c) $\begin{array}{r} 366 \\ + 277 \\ \hline \end{array}$							
d) $\begin{array}{r} 579 \\ + 221 \\ \hline \end{array}$	e) $\begin{array}{r} 791 \\ + 163 \\ \hline \end{array}$	f) $\begin{array}{r} 567 \\ + 233 \\ \hline \end{array}$							
$\begin{array}{r} 325 \\ + 247 \\ \hline 562 \end{array}$	$\begin{array}{r} 355 \\ - 247 \\ \hline 112 \end{array}$								

1.6.2020

L.O: To calculate using addition and subtraction

Addition

Easier:

$$\begin{array}{r} 273 \\ + 126 \\ \hline 399 \end{array} \quad \begin{array}{r} 342 \\ + 233 \\ \hline 575 \end{array} \quad \begin{array}{r} 64 \\ + 29 \\ \hline 93 \end{array}$$

$$\begin{array}{r} 82 \\ + 47 \\ \hline 129 \end{array} \quad \begin{array}{r} 159 \\ + 24 \\ \hline 183 \end{array}$$

Medium:

$$\begin{array}{r} 429 \\ + 63 \\ \hline 492 \end{array} \quad \begin{array}{r} 244 \\ + 291 \\ \hline 535 \end{array} \quad \begin{array}{r} 647 \\ + 128 \\ \hline 775 \end{array}$$

$$\begin{array}{r} 356 \\ + 252 \\ \hline 608 \end{array} \quad \begin{array}{r} 575 \\ + 319 \\ \hline 894 \end{array}$$

Trickier:

$$\begin{array}{r} 474 \\ + 383 \\ \hline 857 \end{array} \quad \begin{array}{r} 607 \\ + 285 \\ \hline 892 \end{array} \quad \begin{array}{r} 732 \\ + 279 \\ \hline 1011 \end{array}$$

$$430 + 399 = 829$$

$$\begin{array}{r} 224 \\ + 335 \\ \hline 559 \end{array} \quad \begin{array}{r} 687 \\ + 162 \\ \hline 849 \end{array}$$

Subtraction

Easier:

$$\begin{array}{r} 57 \\ - 22 \\ \hline 35 \end{array} \quad \begin{array}{r} 89 \\ - 73 \\ \hline 16 \end{array} \quad \begin{array}{r} 368 \\ - 45 \\ \hline 323 \end{array} \quad \begin{array}{r} 256 \\ - 141 \\ \hline 115 \end{array}$$

$$\begin{array}{r} 425 \\ - 214 \\ \hline 211 \end{array}$$

Medium:

$\begin{array}{r} 58^5 2 \\ - 228 \\ \hline 334 \end{array}$	$\begin{array}{r} 35^4 4 \\ - 116 \\ \hline 238 \end{array}$	$\begin{array}{r} 6^5 0 9 \\ - 374 \\ \hline 235 \end{array}$
$\begin{array}{r} 4^3 3 8 \\ - 294 \\ \hline 144 \end{array}$	$\begin{array}{r} 7^6 2 1 \\ - 290 \\ \hline 431 \end{array}$	

Trickier:

$\begin{array}{r} 58^7 3 \\ - 346 \\ \hline 237 \end{array}$	$\begin{array}{r} 7^9 0 9 \\ - 434 \\ \hline 275 \end{array}$	$\begin{array}{r} 5^1 3 2 \\ - 293 \\ \hline 349 \end{array}$
--	---	---

$800 - 249 = 551$

$\begin{array}{r} 599 \\ - 346 \\ \hline 253 \end{array}$	$\begin{array}{r} 6^2 3 \\ - 219 \\ \hline 414 \end{array}$
---	---

Apply:

No exchanges = a
 One exchange = b, e
 Two exchanges = c, d, f

Greatest answer = e
 Smallest answer = a

$\begin{array}{r} 325 \\ + 247 \\ \hline 572 \end{array}$	$\begin{array}{r} 38^4 5 \\ - 247 \\ \hline 108 \end{array}$
---	--

For the addition question, Sam has forgotten to exchange ten ones for one ten because $5 + 7 = 12$.

For the subtraction calculation, Sam has tried to do $7 - 5$ in the ones column instead of $5 - 7$ which he needs to exchange one ten for ten ones to be able to complete $(15 - 7)$. He has forgotten that unlike addition, subtraction is not commutative.