

My name



Addition and Subtraction

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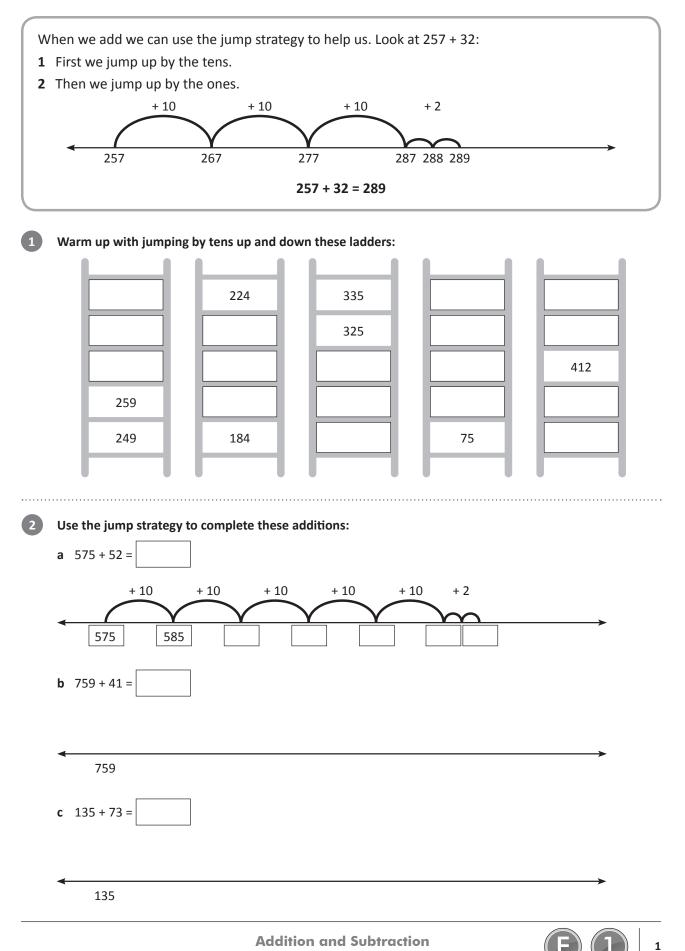
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Addition mental strategies – jump strategy



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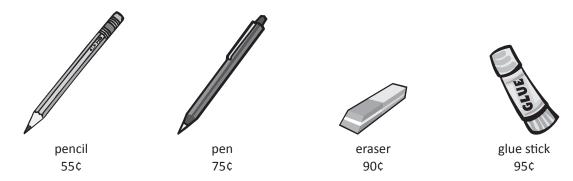
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Addition mental strategies – jump strategy

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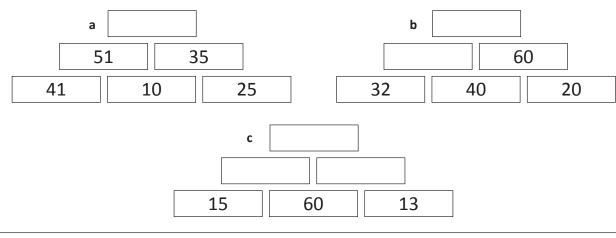
A group of friends each bought some school supplies. Practise using the jump strategy to solve each problem. Write your answer and any working out in the space below each problem:



a How much did Liam spend if he bought a pencil and an eraser?

b How much did Ruby spend if she bought a glue stick and a pen?
c How much did Rea spend if she bought one of each item?
d Rachel spent \$1.85 on 2 items. Use guess, check and improve to work out which 2 items she could have bought.

Use the jump strategy to help you finish these addition walls. Can you see how they work?



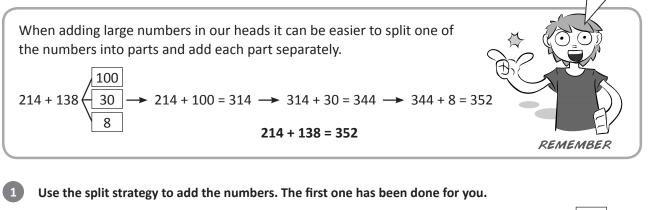


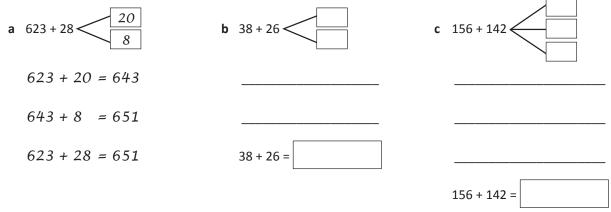
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Addition mental strategies – split strategy

138 can be spilt into 100, 30 and 8.





These problems have been split and some have been solved already. Lucky, hey? You just have to work out what the second numbers were before they were split and answer any unsolved problems:

	а	416 + 90 + 1 = 507	b	230 + 30 + 3 =	с	283 + 60 + 7 =
		was		was		was
		416 +91		230 +		283 +
	d	532 + 60 + 1 =	е	425 + 100 + 40 + 2 =	f	129 + 200 + 40 + 6 =
		was		was		was
		532 +		425 +		129 +
3	yo	ork out the answers to these ques our head. If it helps, make notes as	yoı	u go:	-	_
	а	173 + 36 =	D	446 + 51 =	С	112 + 83 =
	d	724 + 72 =	e	475 + 122 =	f	123 + 164 =

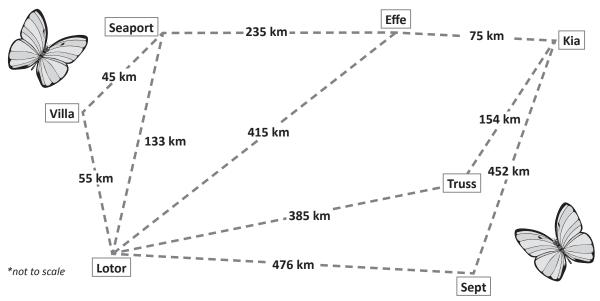
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Addition mental strategies – split strategy



Butterflies can fly great distances. Use the map and the split strategy to calculate the total distance flown by each butterfly in the table below:



Distances to add	Total distance
55 + 45	

We often use the split strategy when adding money. We split the amounts into dollars and cents, work out each part and then add the two answers together:

\$28.50 + \$16.80 = (\$28 + \$16) + (\$0.50 + \$0.80)= \$44 + \$1.30 = \$45.30

\$18.25 + \$12.75Total: \$31Total: \$31Total: \$76\$11.85 + \$34.15Total: \$130Total: \$130



Match the price tags with the bills:

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Addition mental strategies – compensation strategy

Sometimes we round one number in the problem to do in our heads. Then we adjust our answer to 405 + 69 = 474 405 + 70 - 1 <i>I rounded up by 1</i> 475 - 1 = 474 <i>so I subtract 1.</i>	
1 Warm up by rounding these numbers to the clos	est ten:
a 48 b 67	_ c 232 d 74
e 89 f 456	_ g 955 h 786
2 Solve these problems using compensation:	
a 45 + 37 =	b 66 + 18 =
45 + 40	66 +
=	=
c 86 + 49 =	d 124 + 57 =
86 + ()	124 + ()
=	=
We can also round down to the closest ten. Whe Round these numbers to the closest ten. Then co	
a 26 + 42 =	b 35 + 63 =
26 + 40	35 + ()
=	=
c 96 + 21 =	d 145 + 34 =
96 +	145 +
=	=
Addition ar	nd Subtraction 5

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Addition mental strategies – compensation strategy

4	Connect the sta	tements with t	/				
	When we round	d down we com	pensate by		(subtracting	
	When we round	d up we compe	nsate by		(adding	\supset
5	Solve these add compensate ac	•	• .		•	round up or dov	vn and
	a 425 + 67		b 673	+ 98		c 275 + 91	
	d 784 + 32		e 316	+ 73		f 115 + 79	
6	A website track	ed the number	· of visitors ove	r 5 days:	: 		\sim
	Monday	Tuesday	Wednesday	Thursday	Friday	1900:5	< 2000 > 2
	124	199	213	158	236	19	Tu si s
	Use the compe the sum in your a How many p	r head, then sh	ow how you di	d it in the space	e below:		Æ

b How many people looked at the website on Thursday and Friday?

c On which 2 days did the total reach 449 visitors?

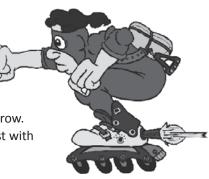


Checkerboard race

apply



This is a game for 2 players. You will need a counter each, a die and some paper to keep score.





Choose the best

addition mental

strategy.

Each of you will choose a starting square on the top row. The object of this game is to get to the finish line first with the largest total.

Roll a die. If you throw:

- a 1 or 2, you can only move one square across the row in either direction;
- a 3 or 4 means you can move one square diagonally;
- a 5 or 6 means you move one downwards.

Add the two numbers using a strategy of your choice. Record your total as you go. Who will arrive at the finish with the largest score? Good luck!



THINK

81	76	93	42	89	50	66	74
62	28	54	37	63	45	95	39
87	70	69	83	75	57	12	49
63	93	52	44	86	67	37	58
38	47	83	17	95	72	49	56
90	73	68	39	54	23	85	43
41	36	51	91	78	66	17	32
63	81	27	11	44	46	50	74
			FIN	ISH			

Can you find the route that would give you the largest possible score?



DISCOVER



Crack the city code



Work out the answers to these sums in your head. Each answer matches a letter in the list on the right. Write the letters next to your answers, then unjumble the letters to find the name of a city.

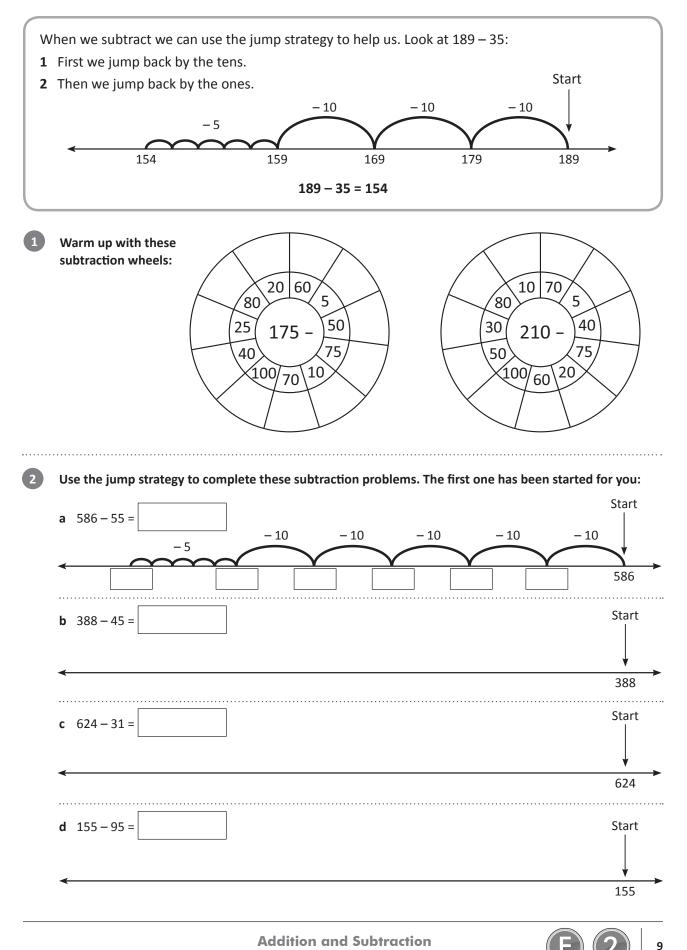


Try competing with a friend to be the fastest to do all of the sums and work out the names of the three cities.

а	701 + 126 =	Letter	Code
	501 + 81 =	Letter	A = 922
	810 + 117 =	Letter	B = 754
	304 + 205 =	Letter	C = 141
			D = 582
	810 + 17 =	Letter	E = 927
	230 + 626 =	Letter	F = 735
ты			G = 222
In			H = 358
h	293 + 216 =	l ottor	I = 780
D		Letter	J = 989
	811 + 111 =	Letter	K = 481
	650 + 130 =	Letter	L = 909
	610 + 57 =	Letter	M = 398
			N = 856
	380 + 32 =	Letter	O = 975
Th	e city is		P = 667
			Q = 555
с	816 + 40 =	Letter	R = 412
	913 + 62 =		S = 509
	913 + 62 =	Letter	T = 538
	751 + 105 =	Letter	U = 656
	830 + 79 =	Letter	V = 1110
	882 + 93 =	Letter	W = 1150
			X = 716
	471 + 111 =	Letter	Y = 827
Th	e city is	 	Z = 1907



Subtraction mental strategies – jump strategy

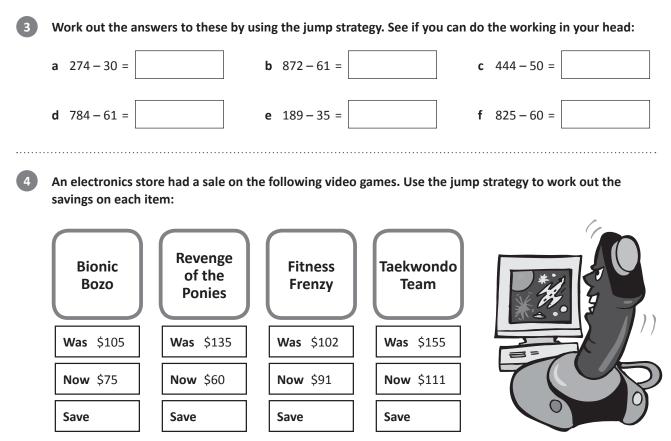


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Subtraction mental strategies – jump strategy

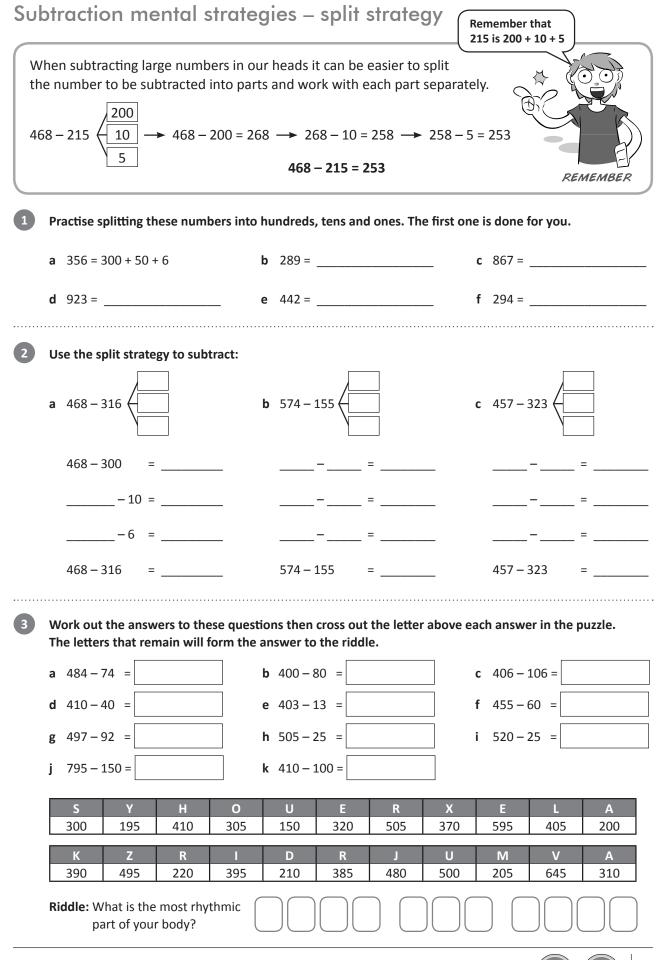


Use the prices above and the jump strategy to solve these problems. Show your answer and any working out:

- **a** Tahlia saved her pocket money for weeks to buy Fitness Frenzy. She had \$120 saved and bought Fitness Frenzy in the sale. How much money did she have left after the purchase?
- **b** Martin saved up especially for the sale and bought 2 items for \$186. He bought Bionic Bozo and which other game?
- **c** Dana bought Taekwondo Team for her husband before the sale. What change did she receive if she paid with 2 \$100 bills?



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Subtraction mental strategies – split strategy

4

5

These problems have been completed. Are they correct? If not, circle where it all began to go wrong:

a 375 - 164 (60) 4	b $429 - 143 \begin{pmatrix} 100 \\ 40 \\ 3 \\ 3 \end{pmatrix}$	c 179 - 158 $\begin{pmatrix} 100 \\ 50 \\ 8 \end{pmatrix}$
375 – 100 = 275	429 - 100 = 323	179 - 100 = 79
275 - 60 = 215	323 - 4 = 319	79 – 50 = 39
215 – 4 = 211	319-3 = 316	39-8 = 31
375 – 164 = 211	429 - 143 = 316	179 - 158 = 31

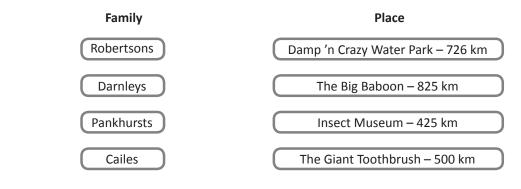
The following problems require you to add and subtract. Use the split strategy to help you solve them:

Four different families went on a holiday over Easter. Work out the distance that each car has travelled on the missing days:

	Robertsons	Pankhursts	Cailes	Darnleys
Day 1	125 km	225 km		130 km
Day 2	375 km		525 km	
Day 3		110 km	125 km	270 km
Total distance	735 km	836 km	950 km	695 km

Make as many notes as you need to help you:

6 Assuming that each family started their holiday from the same place, work out where each family was at the end of Day 2. Connect the place with the family by drawing a line:

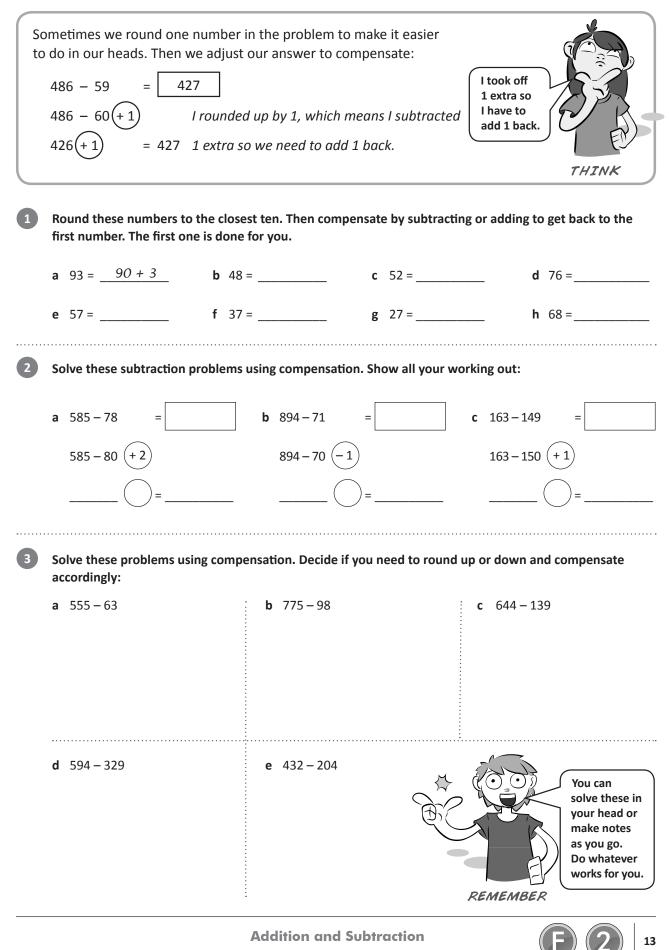




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Subtraction mental strategies – compensation strategy



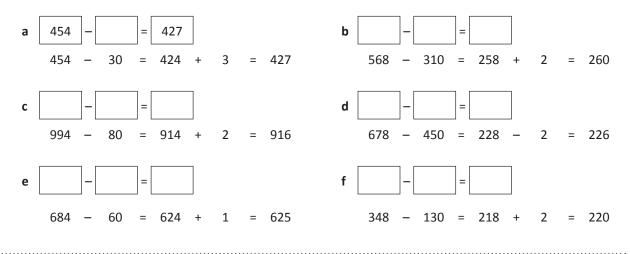
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Subtraction mental strategies – compensation strategy

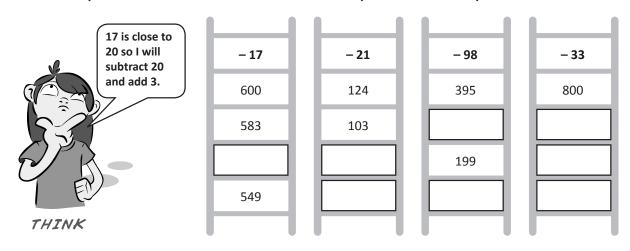
Wally the work experience boy has solved these. He is very chuffed because he solved them all correctly. Can you use his working out to establish what the original questions were?



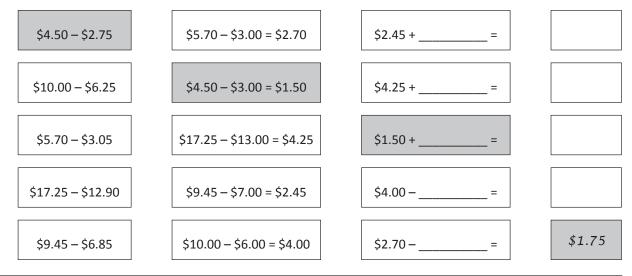
5

6

Use the compensation method to count backwards and complete these number patterns.



These subtraction problems have been partially solved using compensation. Colour match the steps that were used and complete the missing parts. The first one has been done for you:





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Snakes but no ladders



You can play with 1 to 4 players and you will need two dice and a love of snakes!

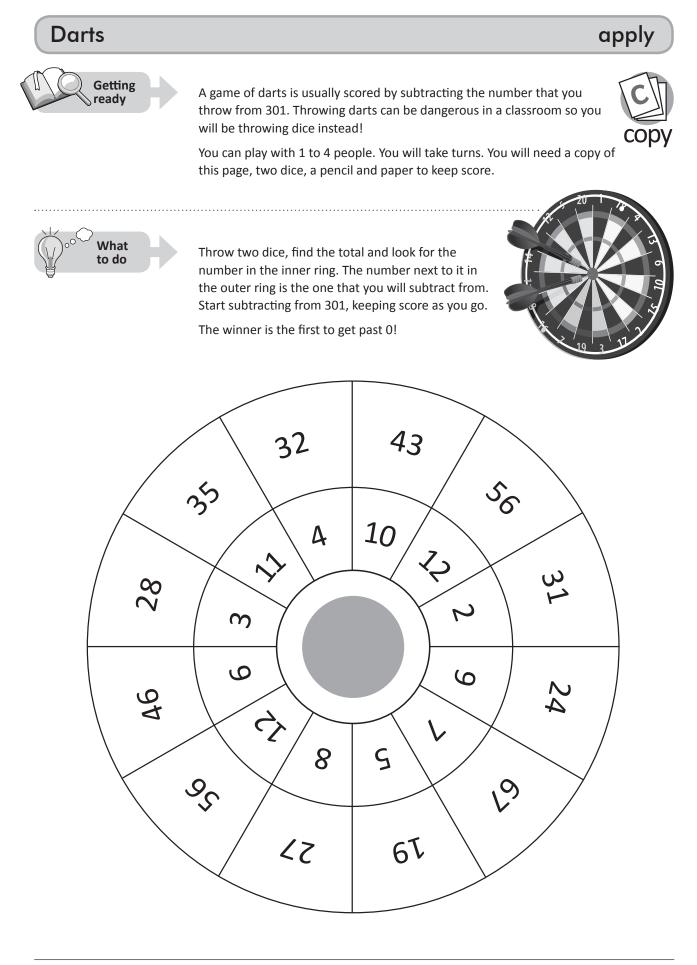


Start at 200. Throw the dice and add the numbers. The answer is the number of spaces you can move.

Follow the numbers. If you land on a square with a snake you must work out the answer to the subtraction and move back to that square! The winner is the first to finish ... alive!

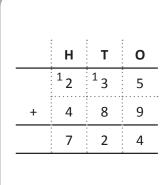
263 Finish	262 (-25)	261	260	259 (-32)	258	257	256
248	249 (-14)	250	251	252	253 (-50)	254	255
247	246	245	244	243	242	241	240
232	233	234	235	236	237	238 (-14)	239
231	230	229	228	227	226	225	224
216 (-8)	217	218	219 (-5)	220	221	222	223
215	214	213 (-10)	212	211	210	209	208
200 Start	201	202	203	204	205	206	207





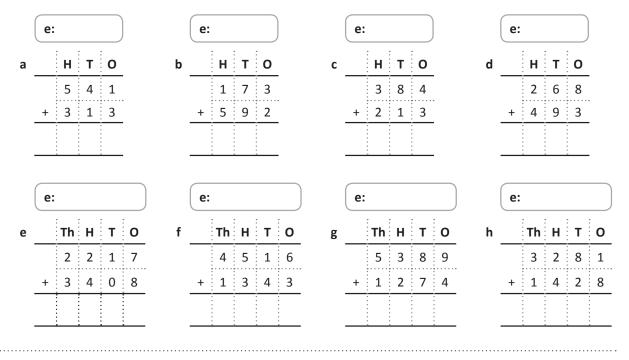


Written methods - addition



How do we add using a written strategy?
First we estimate: 235 + 500 = 735. Our answer will be around 735.
We start with the ones. 5 + 9 is 14 ones. We rename this as 1 ten and 4 ones.
We put the 4 in the ones column and carry the 1 to the tens column.
3 tens plus 8 tens plus the carried ten is 12 tens.
We rename this as 1 hundred 2 tens
We put the 2 in the tens column and carry the 1 to the hundreds column.
We add the hundreds. We put 7 in the hundreds column.
Finally we check against our estimate – do they match?

Solve these addition problems. First estimate the answers:

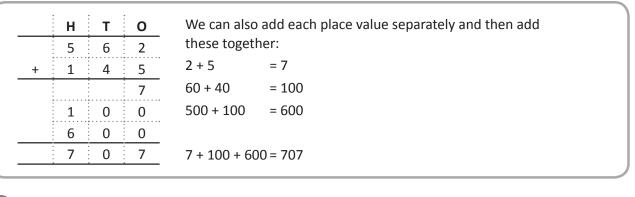


Use these cards to make 5 different addition problems using 2 and 3 digit numbers. Show your working out:

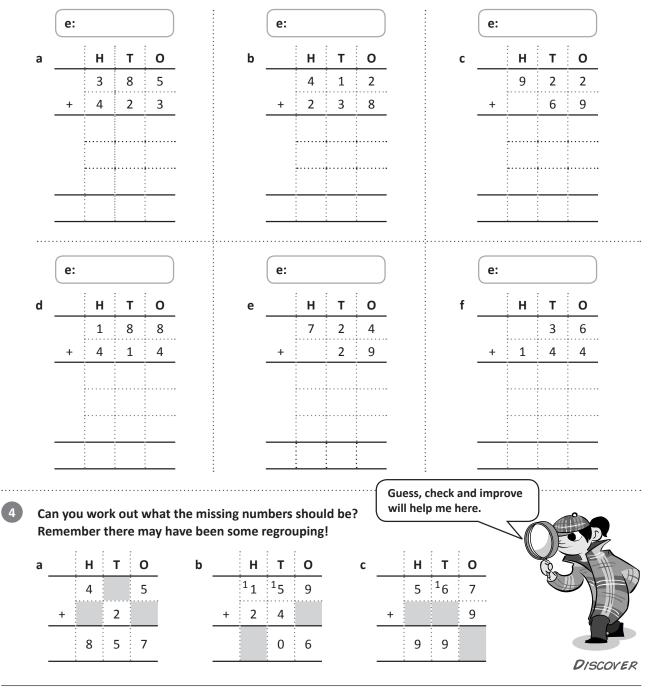




Written methods – addition



Solve these addition problems using a written strategy of your choice:





Addition and Subtraction

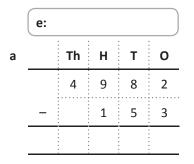
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Written methods – subtraction

	Н	т	ο
	9	⁸ X	¹ 4
_	2	7	8
	7	1	6

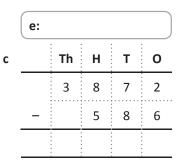
First we estimate: 1000 - 300 = 700
We start with the ones. We can't take 8 away from 4 so we must rename one of the tens as ones. We now have 14 ones.
14 subtract 8 is 6 so we put the 6 in the ones column.
8 tens subtract 7 tens is 1 ten so we put a 1 in the tens column.
We subtract the hundreds. 9 hundred subtract 2 hundred is 7 hundred.
Put a 7 in the hundreds column.
We check the answer against our estimate.

Complete the subtraction problems:



e:				
	Th	н	т	0
	2	9	5	1
-		8	7	8
			* * * *	

b



When a problem asks us to find the difference, we subtract. We always start with the larger number.

4129 km le 3262 km 7419 km 1226 km	Ri Ha	nger arpvi	78 lle 4	233 km 369 km 186 km 595 km	า า
 ce from	Th	H	Т	0	
ar from anville to	Th	H	Т	0	

Solve these problems to find the difference:

a How far fromShowtown toRinger?

•		•
•		
	•	•
	•	
	 •	•
•		
•		
•	 	
•		

ть и то

c What is the distance from Roper to Eagle Bay?

Addition and Subtraction

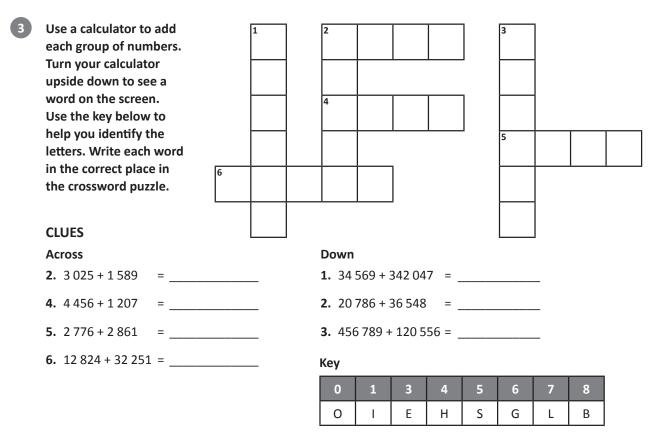
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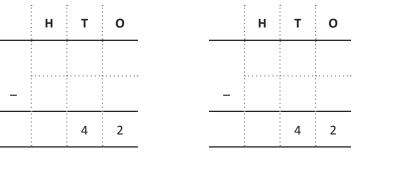
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Written methods – subtraction



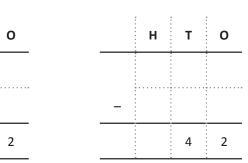
The answer is 42. What could the missing numbers be? Come up with 5 possibilities:



н

Т

4



Т

4

0

2

Н



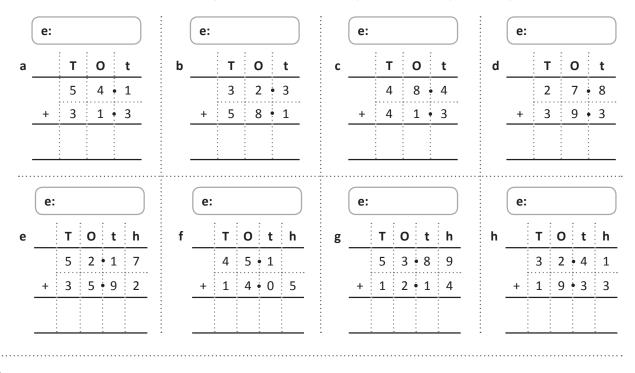
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When we add and subtract decimals we follow the same rules we use when working with whole numbers. We need to make sure we line up the place values and the decimal points:

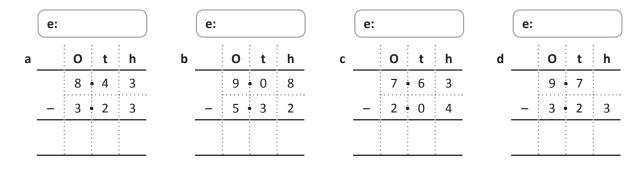
2 1	•		•	t
${}^{3}_{\mathcal{A}}$ ${}^{1}_{3}$ • 3		³ A	¹ 3 •	• 3
- 1 7 • 2	-	1	7 (2
2 6 • 1	•	2	6 •	• 1

Estimate and solve these addition problems. Remember to put the decimal point into your answers:



Estimate and solve these subtraction problems. Remember to put the decimal point into your answers:

2



Bart finished his race in a time of 10.67 secs. Lisa finished in 11.24 secs. How much faster was Bart?



Written methods – adding and subtracting decimals

4 You bought the following. Find the difference between the discount price and regular price for each item, then calculate your total savings. Show all your working out:

\mathbf{V}		
	Was \$9.99	$\overline{}$
	Now \$8.50	
	Save \$	
ົດ		Was \$8.50
X		Now \$7.99
	Was \$7.35	Save \$
	Now \$6.85	
	Save \$	- 1
\mathbf{V}		Was \$8.95
Ň.	W/26 \$2.80	Now \$6.50
	Was \$2.89	Save \$
, i	Save \$	
	٨	Was \$4.66
		Now \$3.89
		Save \$
		Jave 9

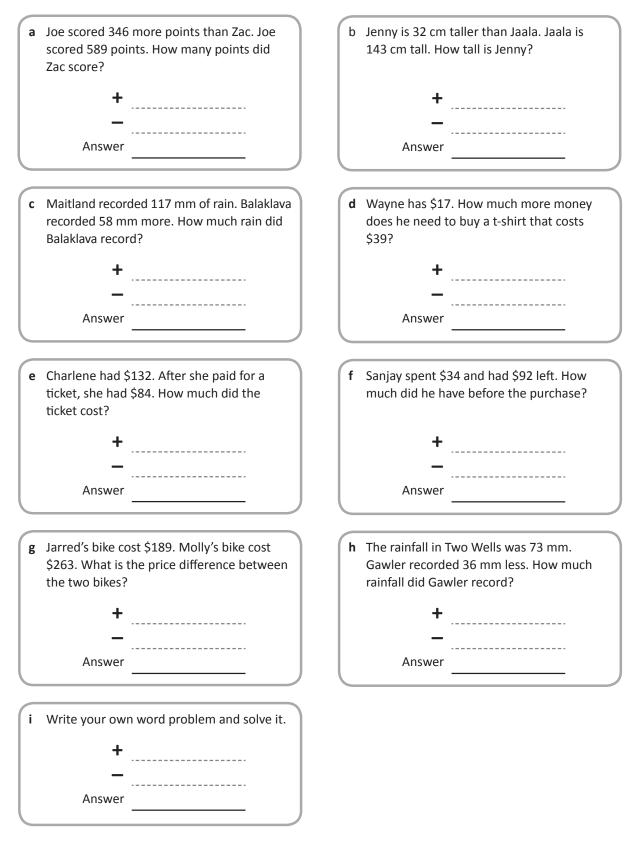
Total savings: ____



Written methods - word problems



Solve the following word problems using addition or subtraction. Circle the operation you use to calculate the answer:

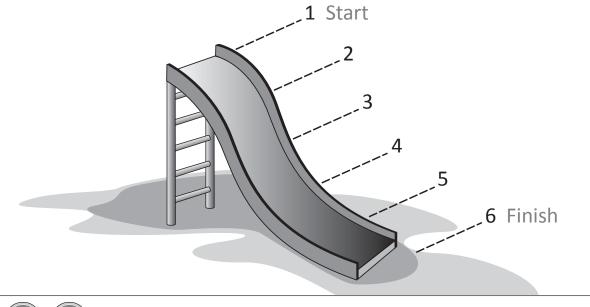




Slippery dip re	ace	apply
Getting ready	Players	2
	Objective	To be the first to slide all the way down the slippery dip and land in the sand.
	Materials	Game marker for each player, scrap paper, pencils, deck of cards with tens and picture cards taken out. Ace has a value of 1.
What to do	To play	 Mix up the cards and place them face down in a pile. Players place the game markers at the Start. Each player draws 6 cards arranging them to make two 3 digit- numbers. Arrange the cards as shown: Remember, the first card
		drawn is in the hundreds place for the first number. The fourth card drawn is in the hundreds place for the second number.

- **4** Add the 2 numbers. The player with the larger total moves the game marker one space down the slippery dip.
- **5** Play until someone lands in the sand.

Variations Change the number of cards laid out.



Addition and Subtraction

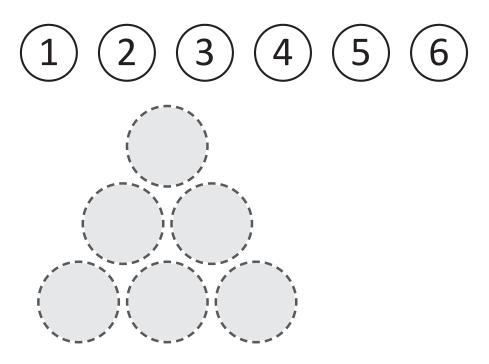
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Subtraction puzzles



Puzzle 1

Place the numbers 1 to 6 in the grey circles so that each number is the difference between the two numbers just below it.



Puzzle 2

Place eight digits from 1 to 8 in each circle. Numbers with a difference of 1 cannot be placed in circles directly connected by a straight line.

