



The Golden Fossil Mystery

Grade 2 math · Addition, Word problems, Place value, Subtraction, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

A rogue dinosaur trainer has sneaked into the Dino Valley Reserve and taken the Golden Fossil! We need to track them down before they escape the valley.

1. Solve each math problem. The answer is a number, and the letter beside it is what that number stands for.
2. In the clue boxes, write that letter in every box showing the same number, then read the secret clue.
3. Use each clue to cross suspects off the list. The one suspect left at the end is the culprit!

My answer: the Dino Thief is _____

Possible suspects

Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	FAVORITE DINO	RANGER GEAR	ACTIVE HAND	CREST COLOR	DREADED SOUND
Zack Gyro	Steggy	Night Vision	Right Handed	Red Crest	Camera Flash
Danny Dino	Raptor	Net Launcher	Left Handed	Green Scales	Camera Flash
Rexy Vance	Steggy	Dino Treats	Left Handed	Red Crest	Squeaky Toy
Penny Ptera	T-Rex	Net Launcher	Left Handed	Green Scales	Squeaky Toy
Spike Taylor	Tricera	Laser Lasso	Left Handed	Green Scales	Squeaky Toy
Daisy Diggs	Tricera	Night Vision	Left Handed	Green Scales	Loud Whistle
Barney Green	Tricera	Dino Treats	Right Handed	Green Scales	Squeaky Toy
Ellie Satler	T-Rex	Net Launcher	Left Handed	Red Crest	Squeaky Toy
Clara Claw	Tricera	Bubble Gun	Left Handed	Green Scales	Squeaky Toy
Ranger Rick	T-Rex	Night Vision	Left Handed	Blue Spikes	Squeaky Toy
Tracker Tom	T-Rex	Net Launcher	Right Handed	Green Scales	Camera Flash
Dr Steve	Ptera	Bubble Gun	Left Handed	Green Scales	Squeaky Toy
Bobby Bronto	Tricera	Night Vision	Right Handed	Green Scales	Camera Flash
Buster Bone	Tricera	Net Launcher	Left Handed	Green Scales	Camera Flash
Sally Swamps	Steggy	Night Vision	Left Handed	Red Crest	Camera Flash
Owen Raptor	Ptera	Dino Treats	Left Handed	Red Crest	Squeaky Toy
Steggy Mills	Ptera	Net Launcher	Left Handed	Blue Spikes	Squeaky Toy
Gray Valley	Ptera	Net Launcher	Left Handed	Blue Spikes	Loud Whistle
Alan Grant	Tricera	Night Vision	Right Handed	Red Crest	Loud Whistle
Raptor Ryan	Ptera	Night Vision	Left Handed	Green Scales	Loud Whistle
Trixie Stone	Steggy	Bubble Gun	Left Handed	Green Scales	Squeaky Toy

CLUE 1 Addition

To find the first clue, we need to count all the dinosaur tracking chips. Add the green chips and the red chips together.

Solve each problem, then write its letter in every clue box that shows the same number.

T			T											T			
56	32	86	56	32	72	86	63	24	80	86	38	95	80	56	98	38	86
T					T												
56	32	86	95	86	56	77	69	98	95	27	32	86	79				

$20 + 36 = \square \rightarrow$ T	$14 + 13 = \square \rightarrow$ C	$32 + 40 = \square \rightarrow$ I
$20 + 12 = \square \rightarrow$ H	$27 + 53 = \square \rightarrow$ O	$57 + 29 = \square \rightarrow$ E
$12 + 12 = \square \rightarrow$ D	$35 + 34 = \square \rightarrow$ A	$38 + 25 = \square \rightarrow$ F
$28 + 49 = \square \rightarrow$ L	$56 + 39 = \square \rightarrow$ N	$63 + 35 = \square \rightarrow$ U
$46 + 33 = \square \rightarrow$ R	$25 + 13 = \square \rightarrow$ S	

Scratch space:

CLUE 2

Word problems

A friendly baby Triceratops dropped a puzzle card. Solve the word problem about feeding dino snacks to get the next clue.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was L D D .

39 18 33 7 10 28 12 18

There were 45 toy raptors. 6 were used up. How many toy raptors are left?

Answer: → L

Ranger Rex lined up 5 rows of 2 dino treats. How many dino treats in all?

Answer: → H

Ranger Rex lined up 11 rows of 3 mud boots. How many mud boots in all?

Answer: → F

Ranger Rex lined up 9 rows of 2 fossil brushes. How many fossil brushes in all?

Answer: → E

Ranger Rex lined up 4 rows of 3 dino treats. How many dino treats in all?

Answer: → N

Ranger Rex lined up 7 rows of 4 fossil brushes. How many fossil brushes in all?

Answer: → A

Ranger Rex found 4 toy raptors yesterday and 3 more today. How many toy raptors in all?

Answer: → T

Scratch space:

CLUE 3 Place value

The security screen is flickering! Read the place value digits on the main computer to unlock the suspect's description.

Solve each problem, then write its letter in every clue box that shows the same number.

T															
98	31	81	57	77	97	95	97	73	97	57	47	77	26	27	97

							T		
21	16	92	81	97	83	57	98	26	57

What number has 9 tens and 8 ones? → **T**

What number has 2 tens and 7 ones? → **M**

What number has 9 tens and 2 ones? → **U**

What number has 4 tens and 7 ones? → **F**

What number has 7 tens and 3 ones? → **W**

What number has 2 tens and 6 ones? → **O**

What number has 1 ten and 6 ones? → **Q**

What number has 8 tens and 3 ones? → **K**

What number has 8 tens and 1 one? → **E**

What number has 7 tens and 7 ones? → **R**

What number has 9 tens and 5 ones? → **N**

What number has 2 tens and 1 one? → **S**

What number has 9 tens and 7 ones? → **A**

What number has 5 tens and 7 ones? → **Y**

What number has 3 tens and 1 one? → **H**

Scratch space:

CLUE 4 Subtraction

Some water bottles were knocked over during the chase. Subtract the spilled bottles from the total to see what is left.

Solve each problem, then write its letter in every clue box that shows the same number.

A																			
63	68	43	31	42	31	33	85	88	86	31	31	71	75	42	63	77	31		

	A											
35	63	75	77	31	85	81	32	31	52	43	71	82

$71 - 8 = \square \rightarrow$ A	$125 - 40 = \square \rightarrow$ F	$101 - 26 = \square \rightarrow$ S
$94 - 12 = \square \rightarrow$ D	$49 - 16 = \square \rightarrow$ O	$90 - 13 = \square \rightarrow$ L
$65 - 22 = \square \rightarrow$ I	$92 - 11 = \square \rightarrow$ T	$72 - 40 = \square \rightarrow$ B
$46 - 11 = \square \rightarrow$ W	$71 - 19 = \square \rightarrow$ H	$91 - 20 = \square \rightarrow$ N
$114 - 26 = \square \rightarrow$ G	$69 - 27 = \square \rightarrow$ C	$48 - 17 = \square \rightarrow$ E
$95 - 27 = \square \rightarrow$ P	$121 - 35 = \square \rightarrow$ R	

Scratch space:

CLUE 5**Missing addends - the last clue**

We need to load the dino-copter with enough gear. Find the missing number of gear bags we need to reach the safe weight limit.

First solve each problem. Then find each answer in the numbered list below and cross that sentence out. One sentence will be left - that is exactly what the villain did!

Step 1 - solve these:

$10 + \underline{\quad} = 11$

$10 + \underline{\quad} = 14$

$3 + \underline{\quad} = 12$

$6 + \underline{\quad} = 13$

$3 + \underline{\quad} = 14$

$8 + \underline{\quad} = 11$

$9 + \underline{\quad} = 19$

$6 + \underline{\quad} = 12$

$1 + \underline{\quad} = 3$

$8 + \underline{\quad} = 16$

$9 + \underline{\quad} = 21$

Step 2 - cross out the sentence with each answer:

1. The villain marches with a Steggy, then shoots a giant Bubble Gun.
2. The villain soars with a Ptera, then swings a glowing Laser Lasso.
3. The villain charges with a Tricera, then peers through Night Vision.
4. The villain charges with a Tricera, then swings a glowing Laser Lasso.
5. The villain charges with a Tricera, then shoots a giant Bubble Gun.
6. The villain marches with a Steggy, then swings a glowing Laser Lasso.
7. The villain soars with a Ptera, then peers through Night Vision.
8. The villain leaps with a Raptor, then peers through Night Vision.
9. The villain soars with a Ptera, then shoots a giant Bubble Gun.
10. The villain soars with a Ptera, then fires a heavy Net Launcher.
11. The villain charges with a Tricera, then fires a heavy Net Launcher.
12. The villain rides a giant T-Rex, then peers through Night Vision.

Answer Key

The Golden Fossil Mystery

Culprit: Clara Claw

Tricera · Bubble Gun · Left Handed · Green Scales · Squeaky Toy

Trail: Start 21 → Clue 1 14 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT USE THE NET LAUNCHER"

$20 + 36 = 56$ (T) · $14 + 13 = 27$ (C) · $32 + 40 = 72$ (I) · $20 + 12 = 32$ (H) · $27 + 53 = 80$ (O) · $57 + 29 = 86$ (E) · $12 + 12 = 24$ (D) · $35 + 34 = 69$ (A) · $38 + 25 = 63$ (F) · $28 + 49 = 77$ (L) · $56 + 39 = 95$ (N) · $63 + 35 = 98$ (U) · $46 + 33 = 79$ (R) · $25 + 13 = 38$ (S)

Clue 2 (Word problems): "LEFT HANDED"

There were 45 toy raptors. 6 were used up. How many toy raptors are left? = 39 (L) · Ranger Rex lined up 5 rows of 2 dino treats. How many dino treats in all? = 10 (H) · Ranger Rex lined up 11 rows of 3 mud boots. How many mud boots in all? = 33 (F) · Ranger Rex lined up 9 rows of 2 fossil brushes. How many fossil brushes in all? = 18 (E) · Ranger Rex lined up 4 rows of 3 dino treats. How many dino treats in all? = 12 (N) · Ranger Rex lined up 7 rows of 4 fossil brushes. How many fossil brushes in all? = 28 (A) · Ranger Rex found 4 toy raptors yesterday and 3 more today. How many toy raptors in all? = 7 (T)

Clue 3 (Place value): "THEY RAN AWAY FROM A SQUEAKY TOY"

What number has 9 tens and 8 ones? = 98 (T) · What number has 2 tens and 7 ones? = 27 (M) · What number has 9 tens and 2 ones? = 92 (U) · What number has 4 tens and 7 ones? = 47 (F) · What number has 7 tens and 3 ones? = 73 (W) · What number has 2 tens and 6 ones? = 26 (O) · What number has 1 ten and 6 ones? = 16 (Q) · What number has 8 tens and 3 ones? = 83 (K) · What number has 8 tens and 1 one? = 81 (E) · What number has 7 tens and 7 ones? = 77 (R) · What number has 9 tens and 5 ones? = 95 (N) · What number has 2 tens and 1 one? = 21 (S) · What number has 9 tens and 7 ones? = 97 (A) · What number has 5 tens and 7 ones? = 57 (Y) · What number has 3 tens and 1 one? = 31 (H)

Clue 4 (Subtraction): "A PIECE OF GREEN SCALE WAS LEFT BEHIND"

$71 - 8 = 63$ (A) · $125 - 40 = 85$ (F) · $101 - 26 = 75$ (S) · $94 - 12 = 82$ (D) · $49 - 16 = 33$ (O) · $90 - 13 = 77$ (L) · $65 - 22 = 43$ (I) · $92 - 11 = 81$ (T) · $72 - 40 = 32$ (B) · $46 - 11 = 35$ (W) · $71 - 19 = 52$ (H) · $91 - 20 = 71$ (N) · $114 - 26 = 88$ (G) · $69 - 27 = 42$ (C) · $48 - 17 = 31$ (E) · $95 - 27 = 68$ (P) · $121 - 35 = 86$ (R)

Clue 5 (Missing addends): surviving statement is box 5 → Clara Claw

$10 + \underline{\quad} = 11 = 1$ · $10 + \underline{\quad} = 14 = 4$ · $3 + \underline{\quad} = 12 = 9$ · $6 + \underline{\quad} = 13 = 7$ · $3 + \underline{\quad} = 14 = 11$ · $8 + \underline{\quad} = 11 = 3$ · $9 + \underline{\quad} = 19 = 10$ · $6 + \underline{\quad} = 12 = 6$ · $1 + \underline{\quad} = 3 = 2$ · $8 + \underline{\quad} = 16 = 8$ · $9 + \underline{\quad} = 21 = 12$