



The Great Dino Valley Mystery

Grade 2 math · Addition, Subtraction, Word problems, Multi-step word problems, Missing addends · Reading level grades 1-2

Detective: _____ **Date:** _____

Someone took the golden fossil from the Dino Valley Museum! The Head Ranger needs your help to track down the sneaky Dino Rustler before the big dino parade begins.

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 Rustler is _____

Possible suspects

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

NAME	DINO POWER	SUPER SKILL	FOOTPRINT TYPE	SCALE COLOR	DINO WEAKNESS
Zelda	Pterodactyl Flight	Loud Roar	Right-Footed Tracks	Green Scales	Squeaky Toys
Rexy	T-Rex Stomp	Long Tail	Left-Footed Tracks	Green Scales	Flashlights
Lola	Raptor Speed	Spiky Back	Right-Footed Tracks	Brown Scales	Flashlights
Chomper	Ankylosaurus Smash	Loud Roar	Right-Footed Tracks	Blue Scales	Flashlights
Penny	Pterodactyl Flight	Loud Roar	Left-Footed Tracks	Green Scales	Squeaky Toys
Buster	Pterodactyl Flight	Spiky Back	Right-Footed Tracks	Brown Scales	Squeaky Toys
Jax	Pterodactyl Flight	Spiky Back	Left-Footed Tracks	Blue Scales	Squeaky Toys
Gus	Pterodactyl Flight	Loud Roar	Right-Footed Tracks	Blue Scales	Squeaky Toys
Milo	Pterodactyl Flight	Loud Roar	Right-Footed Tracks	Brown Scales	Squeaky Toys
Otis	Raptor Speed	Night Vision	Right-Footed Tracks	Brown Scales	Squeaky Toys
Nico	Raptor Speed	Loud Roar	Right-Footed Tracks	Brown Scales	Squeaky Toys
Pip	Ankylosaurus Smash	Sharp Eyes	Right-Footed Tracks	Green Scales	Sweet Berries
Petrie	Triceratops Shield	Spiky Back	Left-Footed Tracks	Green Scales	Sweet Berries
Steggy	Triceratops Shield	Long Tail	Left-Footed Tracks	Green Scales	Sweet Berries
Rocky	Pterodactyl Flight	Loud Roar	Left-Footed Tracks	Brown Scales	Squeaky Toys
Ducky	Ankylosaurus Smash	Long Tail	Left-Footed Tracks	Brown Scales	Sweet Berries
Trixie	Raptor Speed	Night Vision	Right-Footed Tracks	Green Scales	Squeaky Toys
Barney	Ankylosaurus Smash	Long Tail	Right-Footed Tracks	Brown Scales	Squeaky Toys
Spike	Pterodactyl Flight	Long Tail	Right-Footed Tracks	Green Scales	Flashlights
Ruby	Pterodactyl Flight	Spiky Back	Right-Footed Tracks	Green Scales	Sweet Berries
Daisy	Pterodactyl Flight	Long Tail	Left-Footed Tracks	Blue Scales	Flashlights

CLUE 1 Addition

Ranger Toby counts the muddy tracks. Let us add the small prints and the big prints to find the total.

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

T						T										T
62	26	63	86	23	42	62	40	63	86	92	22	63	42	55	22	62

								T				
26	58	53	63	58	40	22	55	97	62	58	77	40

$30 + 32 = \square \rightarrow \text{T}$	$11 + 11 = \square \rightarrow \text{O}$	$68 + 29 = \square \rightarrow \text{G}$
$35 + 23 = \square \rightarrow \text{A}$	$24 + 31 = \square \rightarrow \text{N}$	$18 + 8 = \square \rightarrow \text{H}$
$20 + 33 = \square \rightarrow \text{V}$	$57 + 29 = \square \rightarrow \text{R}$	$9 + 14 = \square \rightarrow \text{U}$
$30 + 12 = \square \rightarrow \text{S}$	$19 + 44 = \square \rightarrow \text{E}$	$44 + 33 = \square \rightarrow \text{I}$
$55 + 37 = \square \rightarrow \text{D}$	$14 + 26 = \square \rightarrow \text{L}$	

Scratch space:

CLUE 2

Subtraction

The thief knocked over some dino treats. We must subtract the spilled treats to see how many are left.

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

T																				
69	68	22	17	27	22	58	33	80	54	34	27	50	17	69	22	63	63	22	54	

		T		T						T				T	
37	34	69	68	69	68	22	73	34	78	68	69	53	50	50	69

$86 - 17 = \square \rightarrow \boxed{\text{T}}$

$34 - 7 = \square \rightarrow \boxed{\text{N}}$

$55 - 33 = \square \rightarrow \boxed{\text{E}}$

$19 - 2 = \square \rightarrow \boxed{\text{S}}$

$112 - 39 = \square \rightarrow \boxed{\text{R}}$

$72 - 22 = \square \rightarrow \boxed{\text{O}}$

$47 - 14 = \square \rightarrow \boxed{\text{K}}$

$42 - 5 = \square \rightarrow \boxed{\text{W}}$

$94 - 36 = \square \rightarrow \boxed{\text{A}}$

$43 - 9 = \square \rightarrow \boxed{\text{I}}$

$110 - 32 = \square \rightarrow \boxed{\text{G}}$

$78 - 10 = \square \rightarrow \boxed{\text{H}}$

$81 - 18 = \square \rightarrow \boxed{\text{P}}$

$91 - 11 = \square \rightarrow \boxed{\text{Y}}$

$84 - 31 = \square \rightarrow \boxed{\text{F}}$

$76 - 22 = \square \rightarrow \boxed{\text{D}}$

Scratch space:

CLUE 3

Word problems

A friendly triceratops has some shiny rocks. Let us solve her quick word puzzle to get the next clue.

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

Someone scared the villain off with S T O S .

20 7 38 37 8 36 30 30 20

Ranger Toby lined up 2 rows of 10 toy tracks. How many toy tracks in all?

Answer: → S

There were 41 toy tracks. 4 were used up. How many toy tracks are left?

Answer: → E

Ranger Toby lined up 6 rows of 5 dino treats. How many dino treats in all?

Answer: → Y

Ranger Toby found 5 shiny rocks yesterday and 2 more today. How many shiny rocks in all?

Answer: → Q

There were 39 water canteens. 3 were used up. How many water canteens are left?

Answer: → K

Ranger Toby found 20 water canteens yesterday and 18 more today. How many water canteens in all?

Answer: → U

Ranger Toby lined up 4 rows of 2 dino treats. How many dino treats in all?

Answer: → A

Scratch space:

CLUE 4

Multi-step word problems

The raptors found some fossil brushes in two different boxes. We need to do two quick steps to count them all.

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

A strand of B A L E hair turned up at the scene.

36 35 25 18 28 17 19 17

There were 292 dino treats in all. 4 dino treats were set aside. The rest were shared equally among 8 Dino Patrol. How many dino treats did each get?

Answer: → B

Ranger Toby collected 100 dino treats in the morning and 2 dino treats in the afternoon, then split them equally among 6 Dino Patrol. How many dino treats did each get?

Answer: → S

There were 176 fossil brushes in all. 24 fossil brushes were set aside. The rest were shared equally among 8 Dino Patrol. How many fossil brushes did each get?

Answer: → C

Ranger Toby collected 26 water canteens in the morning and 74 water canteens in the afternoon, then split them equally among 4 Dino Patrol. How many water canteens did each get?

Answer: → O

Ranger Toby collected 68 water canteens in the morning and 2 water canteens in the afternoon, then split them equally among 2 Dino Patrol. How many water canteens did each get?

Answer: → R

There were 255 shiny rocks in all. 3 shiny rocks were set aside. The rest were shared equally among 9 Dino Patrol. How many shiny rocks did each get?

Answer: → N

Ranger Toby collected 64 water canteens in the morning and 26 water canteens in the afternoon, then split them equally among 5 Dino Patrol. How many water canteens did each get?

Answer: → W

Scratch space:

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

We have some water canteens but we need more to fill the bag. Find the missing number to open the locked box.

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:

$4 + \underline{\quad} = 15$

$6 + \underline{\quad} = 16$

$9 + \underline{\quad} = 13$

$2 + \underline{\quad} = 4$

$6 + \underline{\quad} = 18$

$6 + \underline{\quad} = 14$

$3 + \underline{\quad} = 9$

$9 + \underline{\quad} = 16$

$2 + \underline{\quad} = 5$

$2 + \underline{\quad} = 3$

$8 + \underline{\quad} = 17$

Step 2 - cross out the sentence with each answer:

1. The villain shakes the ground with a t-rex stomp, then spots the guards with sharp eyes.
2. The villain shakes the ground with a t-rex stomp, then lets out a loud roar.
3. The villain dashes past the trees with raptor speed, then spots the guards with sharp eyes.
4. The villain dashes past the trees with raptor speed, then sneaks in the dark with night vision.
5. The villain dashes past the trees with raptor speed, then lets out a loud roar.
6. The villain breaks the museum door with an ankylosaurus smash, then spots the guards with sharp eyes.
7. The villain blocks the path with a triceratops shield, then swipes the prize with a long tail.
8. The villain shakes the ground with a t-rex stomp, then sneaks in the dark with night vision.
9. The villain blocks the path with a triceratops shield, then spots the guards with sharp eyes.
10. The villain soars high up with pterodactyl flight, then knocks down a tree with a spiky back.
11. The villain soars high up with pterodactyl flight, then lets out a loud roar.
12. The villain breaks the museum door with an ankylosaurus smash, then sneaks in the dark with night vision.

Answer Key

The Great Dino Valley Mystery

Culprit: Nico

Raptor Speed · Loud Roar · Right-Footed Tracks · Brown Scales · Squeaky Toys

Trail: Start 21 → Clue 1 15 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE RUSTLER DOES NOT HAVE A LONG TAIL"

$30 + 32 = 62$ (T) · $11 + 11 = 22$ (O) · $68 + 29 = 97$ (G) · $35 + 23 = 58$ (A) · $24 + 31 = 55$ (N) · $18 + 8 = 26$ (H) · $20 + 33 = 53$ (V) · $57 + 29 = 86$ (R) · $9 + 14 = 23$ (U) · $30 + 12 = 42$ (S) · $19 + 44 = 63$ (E) · $44 + 33 = 77$ (I) · $55 + 37 = 92$ (D) · $14 + 26 = 40$ (L)

Clue 2 (Subtraction): "THE SNEAKY DINO STEPPED WITH THE RIGHT FOOT"

$86 - 17 = 69$ (T) · $34 - 7 = 27$ (N) · $55 - 33 = 22$ (E) · $19 - 2 = 17$ (S) · $112 - 39 = 73$ (R) · $72 - 22 = 50$ (O) · $47 - 14 = 33$ (K) · $42 - 5 = 37$ (W) · $94 - 36 = 58$ (A) · $43 - 9 = 34$ (I) · $110 - 32 = 78$ (G) · $78 - 10 = 68$ (H) · $81 - 18 = 63$ (P) · $91 - 11 = 80$ (Y) · $84 - 31 = 53$ (F) · $76 - 22 = 54$ (D)

Clue 3 (Word problems): "SQUEAKY TOYS"

Ranger Toby lined up 2 rows of 10 toy tracks. How many toy tracks in all? = 20 (S) · There were 41 toy tracks. 4 were used up. How many toy tracks are left? = 37 (E) · Ranger Toby lined up 6 rows of 5 dino treats. How many dino treats in all? = 30 (Y) · Ranger Toby found 5 shiny rocks yesterday and 2 more today. How many shiny rocks in all? = 7 (Q) · There were 39 water canteens. 3 were used up. How many water canteens are left? = 36 (K) · Ranger Toby found 20 water canteens yesterday and 18 more today. How many water canteens in all? = 38 (U) · Ranger Toby lined up 4 rows of 2 dino treats. How many dino treats in all? = 8 (A)

Clue 4 (Multi-step word problems): "BROWN SCALES"

There were 292 dino treats in all. 4 dino treats were set aside. The rest were shared equally among 8 Dino Patrol. How many dino treats did each get? = 36 (B) · Ranger Toby collected 100 dino treats in the morning and 2 dino treats in the afternoon, then split them equally among 6 Dino Patrol. How many dino treats did each get? = 17 (S) · There were 176 fossil brushes in all. 24 fossil brushes were set aside. The rest were shared equally among 8 Dino Patrol. How many fossil brushes did each get? = 19 (C) · Ranger Toby collected 26 water canteens in the morning and 74 water canteens in the afternoon, then split them equally among 4 Dino Patrol. How many water canteens did each get? = 25 (O) · Ranger Toby collected 68 water canteens in the morning and 2 water canteens in the afternoon, then split them equally among 2 Dino Patrol. How many water canteens did each get? = 35 (R) · There were 255 shiny rocks in all. 3 shiny rocks were set aside. The rest were shared equally among 9 Dino Patrol. How many shiny rocks did each get? = 28 (N) · Ranger Toby collected 64 water canteens in the morning and 26 water canteens in the afternoon, then split them equally among 5 Dino Patrol. How many water canteens did each get? = 18 (W)

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

$4 + \underline{\quad} = 15 = 11$ · $6 + \underline{\quad} = 16 = 10$ · $9 + \underline{\quad} = 13 = 4$ · $2 + \underline{\quad} = 4 = 2$ · $6 + \underline{\quad} = 18 = 12$ · $6 + \underline{\quad} = 14 = 8$ · $3 + \underline{\quad} = 9 = 6$ · $9 + \underline{\quad} = 16 = 7$ · $2 + \underline{\quad} = 5 = 3$ · $2 + \underline{\quad} = 3 = 1$ · $8 + \underline{\quad} = 17 = 9$