



The Golden Egg Mystery

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

Detective: _____ Date: _____

Someone snuck into the Dino-Discovery Lab and took the glowing golden T-Rex egg! As a junior ranger, you must track down the culprit before the egg hatches.

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 Rogue Raptor 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	LAB GADGET	FOOTPRINT	FEATHER CREST	DISTRACTION
Luis Alvarez	T-Rex Chomp	Stun Net	Left Clawed	Bright Green Feathers	Squeaky Toys
Paul Sereno	Stegosaurus Tail Whip	Sonic Whistle	Right Clawed	Bright Green Feathers	Shiny Flashlights
Scout Sarah	Pterodactyl Flight	Night Goggles	Left Clawed	Ruby Red Spikes	Crunchy Dino Treats
Jack Horner	Triceratops Bash	Sonic Whistle	Right Clawed	Bright Green Feathers	Squeaky Toys
Ranger Rex	Pterodactyl Flight	Night Goggles	Left Clawed	Bright Green Feathers	Squeaky Toys
Dino Dan	Stegosaurus Tail Whip	Grappling Hook	Left Clawed	Ruby Red Spikes	Squeaky Toys
Sandy Clay	Raptor Speed	Grappling Hook	Left Clawed	Bright Green Feathers	Squeaky Toys
Bucky Bone	Stegosaurus Tail Whip	Stun Net	Right Clawed	Sandy Yellow Crest	Squeaky Toys
Digging Dave	Raptor Speed	Sonic Whistle	Right Clawed	Sandy Yellow Crest	Shiny Flashlights
Fossil Fiona	Stegosaurus Tail Whip	Laser Tracker	Left Clawed	Bright Green Feathers	Crunchy Dino Treats
Rocky Stone	Stegosaurus Tail Whip	Laser Tracker	Left Clawed	Ruby Red Spikes	Squeaky Toys
Tracker Toby	T-Rex Chomp	Sonic Whistle	Left Clawed	Bright Green Feathers	Squeaky Toys
Professor Paws	T-Rex Chomp	Grappling Hook	Right Clawed	Sandy Yellow Crest	Squeaky Toys
Dr Ellie	Stegosaurus Tail Whip	Night Goggles	Right Clawed	Bright Green Feathers	Shiny Flashlights
Gary Giganoto	Triceratops Bash	Grappling Hook	Left Clawed	Ruby Red Spikes	Crunchy Dino Treats
Mary Anning	Pterodactyl Flight	Stun Net	Right Clawed	Bright Green Feathers	Squeaky Toys
Barnum Brown	T-Rex Chomp	Laser Tracker	Left Clawed	Bright Green Feathers	Squeaky Toys
Dr Grant	T-Rex Chomp	Laser Tracker	Left Clawed	Bright Green Feathers	Crunchy Dino Treats
Hunter Herb	T-Rex Chomp	Grappling Hook	Left Clawed	Bright Green Feathers	Squeaky Toys
Amber Fossil	T-Rex Chomp	Sonic Whistle	Right Clawed	Ruby Red Spikes	Squeaky Toys
Bob Bakker	Raptor Speed	Sonic Whistle	Right Clawed	Bright Green Feathers	Squeaky Toys

CLUE 1 Place value

We check the digital security panel on the lab door. The screen flashes a large code, but the hundreds digit is smudged. Find the correct digit to unlock the first clue!

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

T			T										T				
7000	80	8000	7000	80	70	8000	30	6000	70	6000	100	10	7000	9000	4000	8000	400

3000	5000	400	20	20	200	70	100	3000	80	10	10	50

What is the value of the 7 in 47,333? → **T**

What is the value of the 8 in 9,585? → **H**

What is the value of the 4 in 435? → **A**

What is the value of the 3 in 930? → **F**

What is the value of the 6 in 6,348? → **D**

What is the value of the 5 in 856? → **K**

What is the value of the 1 in 6,310? → **O**

What is the value of the 4 in 84,516? → **S**

What is the value of the 7 in 878? → **I**

What is the value of the 3 in 3,199? → **G**

What is the value of the 2 in 1,241? → **L**

What is the value of the 5 in 5,617? → **R**

What is the value of the 9 in 69,237? → **U**

What is the value of the 1 in 196? → **N**

What is the value of the 8 in 38,017? → **E**

What is the value of the 2 in 7,721? → **P**

Scratch space:

CLUE 2 Addition

The thief scrambled the fossilized teeth collection! We need to add up the fossil counts in all three drawers to make sure none are missing and find our next clue.

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

T 2769	2574	4803	T 2769	9301	2380	5784	8743	4202	4202	2574	7773	3937	T 2769	2574	4803
5414	4803	6769	T 2769	6769	7773	T 2769	2106	9301	4803	4202	4202	4803	5469		
5469	4803	4803	2106	4803	9301										

$1845 + 924 = \boxed{} \rightarrow \boxed{T}$

$2374 + 1828 = \boxed{} \rightarrow \boxed{S}$

$954 + 1152 = \boxed{} \rightarrow \boxed{P}$

$3976 + 4767 = \boxed{} \rightarrow \boxed{K}$

$3439 + 1975 = \boxed{} \rightarrow \boxed{L}$

$3302 + 1501 = \boxed{} \rightarrow \boxed{E}$

$2812 + 6489 = \boxed{} \rightarrow \boxed{R}$

$1612 + 2325 = \boxed{} \rightarrow \boxed{W}$

$1549 + 831 = \boxed{} \rightarrow \boxed{A}$

$2067 + 4702 = \boxed{} \rightarrow \boxed{F}$

$3341 + 2128 = \boxed{} \rightarrow \boxed{D}$

$2880 + 2904 = \boxed{} \rightarrow \boxed{C}$

$1778 + 796 = \boxed{} \rightarrow \boxed{H}$

$4784 + 2989 = \boxed{} \rightarrow \boxed{O}$

Scratch space:

Subtraction

To measure how far the thief fled, we check the dinosaur energy meter. Subtract the used power from the total starting power to see where they stopped.

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

Diagram illustrating the distribution of the letter 'T' in the top row of the 10x10 grid across 10 columns. The 'T' is present in the first column (2771) and the eighth column (2771).

$$6939 - 4168 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$10089 - 2988 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$7442 - 3331 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$$6533 - 2796 = \boxed{} \rightarrow \boxed{\text{A}}$$

$2230 - 341 = \boxed{} \rightarrow \boxed{\text{D}}$

$$2709 - 349 = \boxed{} \rightarrow \boxed{\text{K}}$$

$12343 - 4095 = \boxed{} \rightarrow \boxed{\text{P}}$

$$7502 - 1888 = \boxed{} \rightarrow \boxed{\text{C}}$$

$8508 - 438 = \boxed{} \rightarrow \boxed{\text{U}}$

$$4655 - 1933 = \boxed{} \rightarrow \boxed{\mathbf{G}}$$

$$7332 - 1155 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$10912 - 4382 = \boxed{} \rightarrow \boxed{\text{Q}}$$

$$10171 - 1935 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$3778 - 2654 = \boxed{} \rightarrow \boxed{0}$$

Scratch space:

CLUE 4 Word problems

A baby triceratops is hungry! Solve this leafy feeding problem to calm down the dinosaur so we can safely read the clue dropped in its pen.

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

A strand of

turned up at the scene.

Ranger Cody lined up 10 rows of 8 dinosaur treats. How many dinosaur treats in all?

Answer: → **B**

Ranger Cody found 15 glowing eggs yesterday and 16 more today. How many glowing eggs in all?

Answer: → **T**

Ranger Cody found 31 dino footprints yesterday and 14 more today. How many dino footprints in all?

Answer: → **G**

There were 114 dino footprints. 35 were used up. How many dino footprints are left?

Answer: → **R**

There were 92 fossil brushes. 26 were used up. How many fossil brushes are left?

Answer: → **H**

There were 113 fossil brushes. 35 were used up. How many fossil brushes are left?

Answer: → ☒

Ranger Cody lined up 10 rows of 3 dinosaur treats. How many dinosaur treats in all?

Answer: → **E**

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

We found a box of ancient amber stones dropped by the thief. If we divide them equally among our team, how many stones does each ranger get?

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:

$14 \div 7 = \boxed{}$

$5 \div 1 = \boxed{}$

$70 \div 10 = \boxed{}$

$80 \div 10 = \boxed{}$

$30 \div 3 = \boxed{}$

$48 \div 12 = \boxed{}$

$18 \div 2 = \boxed{}$

$60 \div 10 = \boxed{}$

$1 \div 1 = \boxed{}$

$36 \div 3 = \boxed{}$

$24 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain smashed through the heavy wooden gate, then threw a heavy web net.
2. The villain roared like a mighty tyrannosaurus, then shined a red laser on the wall.
3. The villain soared over the protective fence, then threw a heavy web net.
4. The villain roared like a mighty tyrannosaurus, then glowed with night vision lenses.
5. The villain soared over the protective fence, then glowed with night vision lenses.
6. The villain dashed past the fossil displays, then shined a red laser on the wall.
7. The villain roared like a mighty tyrannosaurus, then threw a heavy web net.
8. The villain smashed through the heavy wooden gate, then shined a red laser on the wall.
9. The villain smashed through the heavy wooden gate, then swung away using a thick rope.
10. The villain swung a heavy spiky tail around, then blew a loud sonic whistle.
11. The villain roared like a mighty tyrannosaurus, then blew a loud sonic whistle.
12. The villain soared over the protective fence, then swung away using a thick rope.

Answer Key

The Golden Egg Mystery

Culprit: Tracker Toby

T-Rex Chomp · Sonic Whistle · Left Clawed · Bright Green Feathers · Squeaky Toys

Trail: Start 21 → Clue 1 16 → Clue 2 8 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE THIEF DID NOT USE A GRAPPLING HOOK"

What is the value of the 7 in 47,333? = 7000 (T) · What is the value of the 8 in 9,585? = 80 (H) · What is the value of the 4 in 435? = 400 (A) · What is the value of the 3 in 930? = 30 (F) · What is the value of the 6 in 6,348? = 6000 (D) · What is the value of the 5 in 856? = 50 (K) · What is the value of the 1 in 6,310? = 10 (O) · What is the value of the 4 in 84,516? = 4000 (S) · What is the value of the 7 in 878? = 70 (I) · What is the value of the 3 in 3,199? = 3000 (G) · What is the value of the 2 in 1,241? = 200 (L) · What is the value of the 5 in 5,617? = 5000 (R) · What is the value of the 9 in 69,237? = 9000 (U) · What is the value of the 1 in 196? = 100 (N) · What is the value of the 8 in 38,017? = 8000 (E) · What is the value of the 2 in 7,721? = 20 (P)

Clue 2 (Addition): "THE TRACKS SHOW THE LEFT FOOT PRESSED DEEPER"

1845 + 924 = 2769 (T) · 2374 + 1828 = 4202 (S) · 954 + 1152 = 2106 (P) · 3976 + 4767 = 8743 (K) · 3439 + 1975 = 5414 (L) · 3302 + 1501 = 4803 (E) · 2812 + 6489 = 9301 (R) · 1612 + 2325 = 3937 (W) · 1549 + 831 = 2380 (A) · 2067 + 4702 = 6769 (F) · 3341 + 2128 = 5469 (D) · 2880 + 2904 = 5784 (C) · 1778 + 796 = 2574 (H) · 4784 + 2989 = 7773 (O)

Clue 3 (Subtraction): "THE SQUEAKY DOG TOY STOPPED THE ATTACK"

6939 - 4168 = 2771 (T) · 10089 - 2988 = 7101 (S) · 7442 - 3331 = 4111 (Y) · 6533 - 2796 = 3737 (A) · 2230 - 341 = 1889 (D) · 2709 - 349 = 2360 (K) · 12343 - 4095 = 8248 (P) · 7502 - 1888 = 5614 (C) · 8508 - 438 = 8070 (U) · 4655 - 1933 = 2722 (G) · 7332 - 1155 = 6177 (H) · 10912 - 4382 = 6530 (Q) · 10171 - 1935 = 8236 (E) · 3778 - 2654 = 1124 (O)

Clue 4 (Word problems): "BRIGHT GREEN FEATHERS"

Ranger Cody lined up 10 rows of 8 dinosaur treats. How many dinosaur treats in all? = 80 (B) · Ranger Cody found 15 glowing eggs yesterday and 16 more today. How many glowing eggs in all? = 31 (T) · Ranger Cody found 31 dino footprints yesterday and 14 more today. How many dino footprints in all? = 45 (G) · There were 114 dino footprints. 35 were used up. How many dino footprints are left? = 79 (R) · There were 92 fossil brushes. 26 were used up. How many fossil brushes are left? = 66 (H) · There were 113 fossil brushes. 35 were used up. How many fossil brushes are left? = 78 (I) · Ranger Cody lined up 10 rows of 3 dinosaur treats. How many dinosaur treats in all? = 30 (E)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Tracker Toby

14 ÷ 7 = 2 · 5 ÷ 1 = 5 · 70 ÷ 10 = 7 · 80 ÷ 10 = 8 · 30 ÷ 3 = 10 · 48 ÷ 12 = 4 · 18 ÷ 2 = 9 · 60 ÷ 10 = 6 · 1 ÷ 1 = 1 · 36 ÷ 3 = 12 · 24 ÷ 8 = 3