



The Great Golden Egg Heist

Grade 6 math · Place value, Percentages, Exponents, Order of operations, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

A rogue agent has sneaked into the Prehistoric Preservation Sanctuary, deactivated the security fences, and snatched the ultra-rare golden T-Rex egg! The Hatchery is in lockdown, and the Paleo Patrol needs your help to crack the codes, track the clues, and stop the Dino-Snatcher 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 Dino-Snatcher is _____

Possible suspects

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

NAME	DINO ABILITY	SCOUTING GEAR	DOMINANT HAND	HAIR COLOR	SECRET FEAR
Roy Andrews	T-Rex Roar	Sonic Whistle	Right Handed	Jungle Green	Loud Clapping
Steve Brusatte	T-Rex Roar	Walkie Talkie	Left Handed	Fossil Gray	Loud Clapping
Sue Hendrickson	T-Rex Roar	Thermal Sensor	Left Handed	Volcanic Red	Shiny Fossils
Gideon Mantell	T-Rex Roar	Laser Pointer	Right Handed	Fossil Gray	Loud Clapping
Rex Morgan	Pterodactyl Flight	Walkie Talkie	Right Handed	Fossil Gray	Shiny Fossils
Ellie Sattler	Raptor Speed	Walkie Talkie	Left Handed	Jungle Green	Fresh Jungle Leaves
Othniel Marsh	T-Rex Roar	Sonic Whistle	Right Handed	Fossil Gray	Loud Clapping
Patricia Vickers	T-Rex Roar	Thermal Sensor	Right Handed	Fossil Gray	Loud Clapping
Sarah Harding	Triceratops Shield	Sonic Whistle	Left Handed	Fossil Gray	Shiny Fossils
Ian Malcolm	Triceratops Shield	Thermal Sensor	Right Handed	Jungle Green	Shiny Fossils
William Buckland	Triceratops Shield	Thermal Sensor	Right Handed	Jungle Green	Loud Clapping
Jack Horner	Triceratops Shield	Walkie Talkie	Right Handed	Fossil Gray	Shiny Fossils
John Hammond	Triceratops Shield	Thermal Sensor	Right Handed	Fossil Gray	Loud Clapping
Barnum Brown	T-Rex Roar	Walkie Talkie	Right Handed	Fossil Gray	Fresh Jungle Leaves
Mary Anning	Raptor Speed	Thermal Sensor	Left Handed	Fossil Gray	Fresh Jungle Leaves
Luis Alvarez	Raptor Speed	Sonic Whistle	Left Handed	Volcanic Red	Shiny Fossils
Edward Cope	Raptor Speed	Walkie Talkie	Right Handed	Volcanic Red	Loud Clapping
Karen Chin	Raptor Speed	Sonic Whistle	Right Handed	Fossil Gray	Loud Clapping
Dong Zhiming	T-Rex Roar	Walkie Talkie	Left Handed	Volcanic Red	Fresh Jungle Leaves
Charles Knight	Raptor Speed	Thermal Sensor	Left Handed	Fossil Gray	Shiny Fossils
Alan Grant	T-Rex Roar	Night Vision Goggles	Right Handed	Fossil Gray	Fresh Jungle Leaves

CLUE 1

The security panel at the Hatchery needs us to find the value of the digit in the tens place to unlock the system logs.

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

A 2x10 grid of boxes. The top row contains the numbers 500, 900, 60, 50, 70, 30, 30, 4000, 70, 1000, 40, 100, 60, 300, 1000, 100, and 500. The bottom row contains the numbers 90, 300, 60, 4000, 30, 4000, 300, 60, 8000, 10, 100, 70, 1000, 500, 60, and 8000. The box containing the number 500 in the top row and the box containing the number 500 in the bottom row are highlighted in orange and contain the letter 'T'.

What is the value of the 5 in 833,521? → **T**

What is the value of the 1 in 25,619? → **P**

What is the value of the 8 in 958,527? → **R**

What is the value of the 5 in 338,650? → **V**

What is the value of the 3 in 67,328? → **S**

What is the value of the 9 in 527,935? → **H**

What is the value of the 7 in 902,972? →

What is the value of the 9 in 686,295? → **U**

What is the value of the 6 in 15,860? → **E**

What is the value of the 3 in 22,836? → **L**

What is the value of the 4 in 54,956? → **A**

What is the value of the 1 in 878,139? → ☐

What is the value of the 1 in 201,998? → **N**

What is the value of the 4 in 10,146? → **D**

Scratch space:

CLUE 2

Our drone scanned the fossil warehouse and needs us to calculate what percentage of the supply crates have been tampered with.

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

4 24 28 23 45 42 24 4 24 36 39 16 28 16 4 13 13 27

18 36 12 16 23 13 15 15 28 16 39 28 36 23 35 2

50% of 8 = → **T**

5% of 300 = → **P**

75% of 24 = $\rightarrow$ **W**

20% of 175 = $\rightarrow$ **B**

50% of 78 = → **N**

5% of 40 = → **Y**

20% of 65 = $\rightarrow$

10% of 120 = $\rightarrow$ **S**

50% of 56 = → **E**

60% of 45 = → **L**

10% of 420 = → **G**

5% of 320 = $\rightarrow$ **D**

5% of 460 = $\rightarrow$ **R**

5% of 900 = $\rightarrow$

10% of 360 = $\rightarrow$ **A**

$$5\% \text{ of } 480 = \boxed{} \rightarrow \boxed{\text{H}}$$

Scratch space:

CLUE 3 Exponents

The geothermal power grid is rising fast, and we must solve the exponential power increase to keep the hatchery incubators safe.

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

A								A											
125	36	289	49	324	32	36	125	64	64	361	169	121	196	289	49	169	324		
		A								A									
196	32	125	4	25	324	8	243	25	128	125	324	121	49	400					

$5^3 = \square \rightarrow$ A	$20^2 = \square \rightarrow$ Y	$18^2 = \square \rightarrow$ D	$11^2 = \square \rightarrow$ G
$2^2 = \square \rightarrow$ R	$2^5 = \square \rightarrow$ C	$19^2 = \square \rightarrow$ I	$8^2 = \square \rightarrow$ P
$5^2 = \square \rightarrow$ E	$17^2 = \square \rightarrow$ O	$6^2 = \square \rightarrow$ L	$2^7 = \square \rightarrow$ B
$3^5 = \square \rightarrow$ H	$14^2 = \square \rightarrow$ S	$2^3 = \square \rightarrow$ T	$13^2 = \square \rightarrow$ N
$7^2 = \square \rightarrow$ U			

Scratch space:

CLUE 4
Order of operations

A scrambled code on the laboratory screen requires us to follow the strict order of operations to reveal the security camera footage.

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

A				A														A	
14	72	71	21	14	66	31	74	54	54	74	72	72	39	35	51	21	14	43	
	A				A								A						
65	14	39	21	9	14	72	74	66	71	65	67	79	14	51	67				

$6 + 4 \times 2 = \square \rightarrow \boxed{\text{A}}$

$6 \times 6 - 5 = \square \rightarrow \boxed{\text{D}}$

$4 \times 11 - 9 = \square \rightarrow \boxed{\text{L}}$

$58 + 7 \times 2 = \square \rightarrow \boxed{\text{S}}$

$5 + 2 \times 8 = \square \rightarrow \boxed{\text{R}}$

$7 \times 11 - 10 = \square \rightarrow \boxed{\text{E}}$

$9 \times 7 - 24 = \square \rightarrow \boxed{\text{I}}$

$11 \times 7 - 23 = \square \rightarrow \boxed{\text{F}}$

$29 + 6 \times 6 = \square \rightarrow \boxed{\text{H}}$

$10 \times 7 - 19 = \square \rightarrow \boxed{\text{G}}$

$9 \times 8 - 6 = \square \rightarrow \boxed{\text{N}}$

$12 \times 8 - 25 = \square \rightarrow \boxed{\text{T}}$

$1 + 4 \times 2 = \square \rightarrow \boxed{\text{W}}$

$53 + 7 \times 3 = \square \rightarrow \boxed{\text{O}}$

$58 + 7 \times 3 = \square \rightarrow \boxed{\text{C}}$

$11 \times 4 - 1 = \square \rightarrow \boxed{\text{Y}}$

Scratch space:

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

We need to divide the remaining dino tracker badges equally among the team members to map out the final search grid.

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:

$48 \div 6 = \boxed{}$

$40 \div 4 = \boxed{}$

$70 \div 10 = \boxed{}$

$20 \div 5 = \boxed{}$

$30 \div 10 = \boxed{}$

$9 \div 1 = \boxed{}$

$144 \div 12 = \boxed{}$

$20 \div 10 = \boxed{}$

$77 \div 7 = \boxed{}$

$10 \div 10 = \boxed{}$

$72 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain smashed through the reinforced door, then blew a high pitched sonic whistle.
2. The villain dashed past the security gates, then scanned the room with night vision goggles.
3. The villain raised a heavy bone shield, then whispered into a silver walkie talkie.
4. The villain dashed past the security gates, then whispered into a silver walkie talkie.
5. The villain dashed past the security gates, then blew a high pitched sonic whistle.
6. The villain raised a heavy bone shield, then blew a high pitched sonic whistle.
7. The villain unleashed a deafening roar, then blew a high pitched sonic whistle.
8. The villain unleashed a deafening roar, then tracked the path with a thermal sensor.
9. The villain soared over the canopy walls, then tracked the path with a thermal sensor.
10. The villain raised a heavy bone shield, then tracked the path with a thermal sensor.
11. The villain dashed past the security gates, then pointed the way with a bright laser pointer.
12. The villain smashed through the reinforced door, then pointed the way with a bright laser pointer.

Answer Key

The Great Golden Egg Heist

Culprit: Karen Chin

Raptor Speed · Sonic Whistle · Right Handed · Fossil Gray · Loud Clapping

Trail: Start 21 → Clue 1 20 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT USE A LASER POINTER"

What is the value of the 5 in 833,521? = 500 (T) · What is the value of the 1 in 25,619? = 10 (P) · What is the value of the 8 in 958,527? = 8000 (R) · What is the value of the 5 in 338,650? = 50 (V) · What is the value of the 3 in 67,328? = 300 (S) · What is the value of the 9 in 527,935? = 900 (H) · What is the value of the 7 in 902,972? = 70 (I) · What is the value of the 9 in 686,295? = 90 (U) · What is the value of the 6 in 15,860? = 60 (E) · What is the value of the 3 in 22,836? = 30 (L) · What is the value of the 4 in 54,956? = 4000 (A) · What is the value of the 1 in 878,139? = 100 (O) · What is the value of the 1 in 201,998? = 1000 (N) · What is the value of the 4 in 10,146? = 40 (D)

Clue 2 (Percentages): "THE RIGHT HANDED TOOL WAS DROPPED NEARBY"

50% of 8 = 4 (T) · 5% of 300 = 15 (P) · 75% of 24 = 18 (W) · 20% of 175 = 35 (B) · 50% of 78 = 39 (N) · 5% of 40 = 2 (Y) · 20% of 65 = 13 (O) · 10% of 120 = 12 (S) · 50% of 56 = 28 (E) · 60% of 45 = 27 (L) · 10% of 420 = 42 (G) · 5% of 320 = 16 (D) · 5% of 460 = 23 (R) · 5% of 900 = 45 (I) · 10% of 360 = 36 (A) · 5% of 480 = 24 (H)

Clue 3 (Exponents): "A LOUD CLAPPING SOUND SCARED THE BAD GUY"

$5^3 = 125$ (A) · $20^2 = 400$ (Y) · $18^2 = 324$ (D) · $11^2 = 121$ (G) · $2^2 = 4$ (R) · $2^5 = 32$ (C) · $19^2 = 361$ (I) · $8^2 = 64$ (P) · $5^2 = 25$ (E) · $17^2 = 289$ (O) · $6^2 = 36$ (L) · $2^7 = 128$ (B) · $3^5 = 243$ (H) · $14^2 = 196$ (S) · $2^3 = 8$ (T) · $13^2 = 169$ (N) · $7^2 = 49$ (U)

Clue 4 (Order of operations): "A STRAND OF FOSSIL GRAY HAIR WAS ON THE CAGE"

$6 + 4 \times 2 = 14$ (A) · $6 \times 6 - 5 = 31$ (D) · $4 \times 11 - 9 = 35$ (L) · $58 + 7 \times 2 = 72$ (S) · $5 + 2 \times 8 = 21$ (R) · $7 \times 11 - 10 = 67$ (E) · $9 \times 7 - 24 = 39$ (I) · $11 \times 7 - 23 = 54$ (F) · $29 + 6 \times 6 = 65$ (H) · $10 \times 7 - 19 = 51$ (G) · $9 \times 8 - 6 = 66$ (N) · $12 \times 8 - 25 = 71$ (T) · $1 + 4 \times 2 = 9$ (W) · $53 + 7 \times 3 = 74$ (O) · $58 + 7 \times 3 = 79$ (C) · $11 \times 4 - 1 = 43$ (Y)

Clue 5 (Division facts (1-12)): surviving statement is box 5 → Karen Chin

$48 \div 6 = 8$ · $40 \div 4 = 10$ · $70 \div 10 = 7$ · $20 \div 5 = 4$ · $30 \div 10 = 3$ · $9 \div 1 = 9$ · $144 \div 12 = 12$ · $20 \div 10 = 2$ · $77 \div 7 = 11$ · $10 \div 10 = 1$ · $72 \div 12 = 6$