



Mystery at Cretacia Park

Grade 5 math · Addition, Subtraction, Multiplication, Fractions of a number, Division · Reading level grades 5-6

Detective: _____ Date: _____

Someone broke into the Cretacia Park research lab and snatched the rare golden Amber Skull! Work through the clues and track down the culprit.

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 Wrangler is _____

Possible suspects

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

NAME	SPECIALTY	TOOL	DOMINANT HAND	HAIRSTYLE	WEAKNESS
Paul Barrett	FOSSIL DIGGING	NIGHT VISOR	RIGHT HANDED	MUDDY SPIKES	SMELLY BAIT
Rodolfo Coria	TRICERATOPS TAME	SONIC WHISTLE	LEFT HANDED	FOSSIL BRAID	LOUD AIRHORN
Angela Milner	TRICERATOPS TAME	STUN BATON	LEFT HANDED	FOSSIL BRAID	SMELLY BAIT
Ian Malcolm	FLYING REPTILE	SONIC WHISTLE	LEFT HANDED	MUDDY SPIKES	BRIGHT FLARE
Othniel Marsh	FLYING REPTILE	STUN BATON	LEFT HANDED	FOSSIL BRAID	SMELLY BAIT
Robert Bakker	FLYING REPTILE	STUN BATON	RIGHT HANDED	MUDDY SPIKES	BRIGHT FLARE
Dong Zhiming	REX TRACKING	SONIC WHISTLE	LEFT HANDED	MUDDY SPIKES	BRIGHT FLARE
Patricia Vickers	FLYING REPTILE	NET LAUNCHER	RIGHT HANDED	MUDDY SPIKES	BRIGHT FLARE
Ellie Sattler	RAPTOR CONTROL	LASER POINTER	LEFT HANDED	MUDDY SPIKES	BRIGHT FLARE
Nizar Ibrahim	FOSSIL DIGGING	SONIC WHISTLE	LEFT HANDED	FOSSIL BRAID	BRIGHT FLARE
Paul Sereno	RAPTOR CONTROL	STUN BATON	RIGHT HANDED	MUDDY SPIKES	BRIGHT FLARE
Mary Anning	TRICERATOPS TAME	SONIC WHISTLE	RIGHT HANDED	BUZZ CUT	BRIGHT FLARE
Kenneth Carpenter	FOSSIL DIGGING	NET LAUNCHER	LEFT HANDED	MUDDY SPIKES	SMELLY BAIT
Jack Horner	RAPTOR CONTROL	NIGHT VISOR	LEFT HANDED	MUDDY SPIKES	BRIGHT FLARE
Barnum Brown	FOSSIL DIGGING	LASER POINTER	LEFT HANDED	MUDDY SPIKES	SMELLY BAIT
Alan Grant	FLYING REPTILE	STUN BATON	LEFT HANDED	MUDDY SPIKES	LOUD AIRHORN
Phil Currie	REX TRACKING	NIGHT VISOR	LEFT HANDED	FOSSIL BRAID	LOUD AIRHORN
Xu Xing	REX TRACKING	SONIC WHISTLE	LEFT HANDED	FOSSIL BRAID	LOUD AIRHORN
Lindsay Zanno	REX TRACKING	NET LAUNCHER	LEFT HANDED	MUDDY SPIKES	BRIGHT FLARE
Karen Chin	FOSSIL DIGGING	LASER POINTER	LEFT HANDED	FOSSIL BRAID	BRIGHT FLARE
Steve Brusatte	RAPTOR CONTROL	SONIC WHISTLE	RIGHT HANDED	FOSSIL BRAID	LOUD AIRHORN

CLUE 1 Addition

Ranger Sam tallied up all the damaged fossil crates in both storage barns to gather early evidence.

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

T							T								T	
4277	7541	6047	9860	7093	9860	2661	6047	6426	4277	2624	3799	6047	9860	2190	3799	4277

					T							
7093	9860	6047	2190	7523	5116	7541	4277	4407	7523	9860	3799	2803

$2341 + 1936 = \square \rightarrow \text{[T]}$	$5020 + 2521 = \square \rightarrow \text{[H]}$	$2935 + 3491 = \square \rightarrow \text{[C]}$
$2175 + 2941 = \square \rightarrow \text{[G]}$	$1098 + 1705 = \square \rightarrow \text{[R]}$	$1224 + 1400 = \square \rightarrow \text{[D]}$
$2866 + 1541 = \square \rightarrow \text{[V]}$	$926 + 1735 = \square \rightarrow \text{[P]}$	$1963 + 4084 = \square \rightarrow \text{[E]}$
$714 + 1476 = \square \rightarrow \text{[N]}$	$4064 + 3459 = \square \rightarrow \text{[I]}$	$2817 + 4276 = \square \rightarrow \text{[U]}$
$6463 + 3397 = \square \rightarrow \text{[S]}$	$2315 + 1484 = \square \rightarrow \text{[O]}$	

Scratch space:

CLUE 2 Subtraction

To figure out how many raptor claws are missing, Dr. Ellie subtracted the remaining inventory from yesterday's total.

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

F															
1760	2179	2179	2128	7545	7639	2825	8487	2128	7576	1642	7423	5861	8487		
														F	
1979	7423	5861	7814	2825	1642	3092	2128	2179	2128	1979	7423	1642	7423	1760	2128

$$4767 - 3007 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$6323 - 4681 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$6812 - 951 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$7587 - 4762 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$9475 - 2052 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$4197 - 2218 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$5393 - 2301 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$$8729 - 1184 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$3457 - 1278 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$9081 - 594 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$5092 - 2964 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$9300 - 1661 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$11181 - 3367 = \boxed{} \rightarrow \boxed{\text{V}}$$

$$10110 - 2534 = \boxed{} \rightarrow \boxed{\text{S}}$$

Scratch space:

CLUE 3
Multiplication facts (1-12)

The tracking team calculates the search grid area by multiplying the rows of dig sites by the columns.

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

A									A								
1	30	80	4	14	9	48	6	108	1	80	36	15	11	1	80	36	15
					A				A		A						
48	9	36	30	36	1	15	48	1	63	1	33						

$1 \times 1 = \square \rightarrow$ A	$3 \times 5 = \square \rightarrow$ S	$9 \times 7 = \square \rightarrow$ W	$2 \times 7 = \square \rightarrow$ G
$8 \times 10 = \square \rightarrow$ R	$3 \times 10 = \square \rightarrow$ B	$6 \times 6 = \square \rightarrow$ E	
$1 \times 4 = \square \rightarrow$ I	$3 \times 11 = \square \rightarrow$ Y	$9 \times 1 = \square \rightarrow$ H	$3 \times 2 = \square \rightarrow$ F
$9 \times 12 = \square \rightarrow$ L	$11 \times 1 = \square \rightarrow$ C	$4 \times 12 = \square \rightarrow$ T	

Scratch space:

CLUE 4
Fractions of a number

The paleontology team analyzed a fraction of the soil samples from the quarry to narrow down the footprint trail.

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

F																			
7	9	11	13	28	29	11	28	28	25	8	6	27	33	15	8	39	17	27	34
17	19	19	39	15	8	14	15	13	15										

$1/5 \text{ of } 35 = \square \rightarrow \text{F}$

$1/4 \text{ of } 76 = \square \rightarrow \text{T}$

$1/8 \text{ of } 136 = \square \rightarrow \text{A}$

$3/6 \text{ of } 58 = \square \rightarrow \text{M}$

$1/10 \text{ of } 80 = \square \rightarrow \text{S}$

$2/5 \text{ of } 85 = \square \rightarrow \text{R}$

$2/4 \text{ of } 30 = \square \rightarrow \text{E}$

$2/6 \text{ of } 75 = \square \rightarrow \text{Y}$

$1/5 \text{ of } 30 = \square \rightarrow \text{P}$

$3/6 \text{ of } 78 = \square \rightarrow \text{H}$

$1/6 \text{ of } 198 = \square \rightarrow \text{K}$

$1/10 \text{ of } 130 = \square \rightarrow \text{N}$

$6/8 \text{ of } 12 = \square \rightarrow \text{O}$

$4/6 \text{ of } 21 = \square \rightarrow \text{C}$

$2/4 \text{ of } 22 = \square \rightarrow \text{U}$

$1/2 \text{ of } 56 = \square \rightarrow \text{D}$

$1/4 \text{ of } 108 = \square \rightarrow \text{I}$

Scratch space:

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

The security crew divided the perimeter patrol duties evenly among all available park rangers.

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:

$80 \div 10 = \boxed{}$

$18 \div 2 = \boxed{}$

$30 \div 10 = \boxed{}$

$56 \div 8 = \boxed{}$

$55 \div 11 = \boxed{}$

$60 \div 5 = \boxed{}$

$22 \div 11 = \boxed{}$

$7 \div 7 = \boxed{}$

$66 \div 11 = \boxed{}$

$120 \div 12 = \boxed{}$

$66 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain tamed a wild raptor, then charged a high power stun baton.
2. The villain tracked a roaring rex, then flashed a red laser pointer.
3. The villain tracked a roaring rex, then fired a heavy net launcher.
4. The villain tracked a roaring rex, then blew a loud sonic whistle.
5. The villain tracked a roaring rex, then charged a high power stun baton.
6. The villain steered a heavy triceratops, then scouted with night visor.
7. The villain dug up a rare fossil, then flashed a red laser pointer.
8. The villain soared with a pterodactyl, then blew a loud sonic whistle.
9. The villain tamed a wild raptor, then flashed a red laser pointer.
10. The villain tamed a wild raptor, then scouted with night visor.
11. The villain dug up a rare fossil, then blew a loud sonic whistle.
12. The villain steered a heavy triceratops, then fired a heavy net launcher.

Answer Key

Mystery at Cretacia Park

Culprit: Dong Zhiming

REX TRACKING · SONIC WHISTLE · LEFT HANDED · MUDDY SPIKES · BRIGHT FLARE

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SUSPECT DOES NOT USE NIGHT VISOR"

$2341 + 1936 = 4277$ (T) · $5020 + 2521 = 7541$ (H) · $2935 + 3491 = 6426$ (C) · $2175 + 2941 = 5116$ (G) · $1098 + 1705 = 2803$ (R) · $1224 + 1400 = 2624$ (D) · $2866 + 1541 = 4407$ (V) · $926 + 1735 = 2661$ (P) · $1963 + 4084 = 6047$ (E) · $714 + 1476 = 2190$ (N) · $4064 + 3459 = 7523$ (I) · $2817 + 4276 = 7093$ (U) · $6463 + 3397 = 9860$ (S) · $2315 + 1484 = 3799$ (O)

Clue 2 (Subtraction): "FOOTPRINTS LEAN HEAVILY TO THE LEFT"

$4767 - 3007 = 1760$ (F) · $6323 - 4681 = 1642$ (L) · $6812 - 951 = 5861$ (A) · $7587 - 4762 = 2825$ (I) · $9475 - 2052 = 7423$ (E) · $4197 - 2218 = 1979$ (H) · $5393 - 2301 = 3092$ (Y) · $8729 - 1184 = 7545$ (P) · $3457 - 1278 = 2179$ (O) · $9081 - 594 = 8487$ (N) · $5092 - 2964 = 2128$ (T) · $9300 - 1661 = 7639$ (R) · $11181 - 3367 = 7814$ (V) · $10110 - 2534 = 7576$ (S)

Clue 3 (Multiplication facts (1-12)): "A BRIGHT FLARE SCARES THE BEAST AWAY"

$1 \times 1 = 1$ (A) · $3 \times 5 = 15$ (S) · $9 \times 7 = 63$ (W) · $2 \times 7 = 14$ (G) · $8 \times 10 = 80$ (R) · $3 \times 10 = 30$ (B) · $6 \times 6 = 36$ (E) · $1 \times 4 = 4$ (I) · $3 \times 11 = 33$ (Y) · $9 \times 1 = 9$ (H) · $3 \times 2 = 6$ (F) · $9 \times 12 = 108$ (L) · $11 \times 1 = 11$ (C) · $4 \times 12 = 48$ (T)

Clue 4 (Fractions of a number): "FOUND MUDDY SPIKES HAIR AT THE SCENE"

$\frac{1}{5}$ of 35 = 7 (F) · $\frac{1}{4}$ of 76 = 19 (T) · $\frac{1}{8}$ of 136 = 17 (A) · $\frac{3}{6}$ of 58 = 29 (M) · $\frac{1}{10}$ of 80 = 8 (S) · $\frac{2}{5}$ of 85 = 34 (R) · $\frac{2}{4}$ of 30 = 15 (E) · $\frac{2}{6}$ of 75 = 25 (Y) · $\frac{1}{5}$ of 30 = 6 (P) · $\frac{3}{6}$ of 78 = 39 (H) · $\frac{1}{6}$ of 198 = 33 (K) · $\frac{1}{10}$ of 130 = 13 (N) · $\frac{6}{8}$ of 12 = 9 (O) · $\frac{4}{6}$ of 21 = 14 (C) · $\frac{2}{4}$ of 22 = 11 (U) · $\frac{1}{2}$ of 56 = 28 (D) · $\frac{1}{4}$ of 108 = 27 (I)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Dong Zhiming

$80 \div 10 = 8$ · $18 \div 2 = 9$ · $30 \div 10 = 3$ · $56 \div 8 = 7$ · $55 \div 11 = 5$ · $60 \div 5 = 12$ · $22 \div 11 = 2$ · $7 \div 7 = 1$ · $66 \div 11 = 6$ · $120 \div 12 = 10$ · $66 \div 6 = 11$