



The Great Fossil Fiasco

Grade 1 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

A sneaky thief has snatched the golden T-Rex fossil right from the center of the dig site! The Head Paleontologist needs your help to crack the codes and track down the culprit before they escape the island.

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	DINO SUIT POWER	SCOUTING TOOL	DIGGER HAND	HELMET COLOR	LURE BAIT
Gideon Mantell	Raptor Dash	Sonic Roar	Left handed digger	Green helmet	Shiny quartz
Spike Taylor	Triceratops Shield	Lava Boots	Left handed digger	Red helmet	Sweet berries
Alan Grant	Raptor Dash	Sonic Roar	Left handed digger	Blue helmet	Sweet berries
Barnum Brown	T Rex Chomp	Night Goggles	Left handed digger	Red helmet	Sweet berries
Daisy Dig	Triceratops Shield	Vine Lasso	Left handed digger	Red helmet	Sweet berries
Paul Sereno	Pterodactyl Glide	Fossil Radar	Right handed digger	Red helmet	Sweet berries
Robert Bakker	Triceratops Shield	Night Goggles	Right handed digger	Green helmet	Sweet berries
Max Fossil	Pterodactyl Glide	Sonic Roar	Right handed digger	Green helmet	Squeaky toys
Terry Dactyl	Triceratops Shield	Sonic Roar	Right handed digger	Red helmet	Sweet berries
Ian Malcolm	Pterodactyl Glide	Vine Lasso	Left handed digger	Red helmet	Sweet berries
Sue Hendrickson	T Rex Chomp	Lava Boots	Left handed digger	Green helmet	Shiny quartz
Jack Horner	Triceratops Shield	Lava Boots	Left handed digger	Blue helmet	Shiny quartz
Danny Dino	T Rex Chomp	Lava Boots	Left handed digger	Red helmet	Shiny quartz
Edward Cope	Raptor Dash	Lava Boots	Right handed digger	Blue helmet	Squeaky toys
Penny Pyror	Triceratops Shield	Sonic Roar	Left handed digger	Green helmet	Sweet berries
Charles Marsh	Raptor Dash	Night Goggles	Left handed digger	Blue helmet	Sweet berries
Steggy Smith	Triceratops Shield	Night Goggles	Left handed digger	Red helmet	Shiny quartz
Rex Stone	Ankylosaurus Smash	Night Goggles	Right handed digger	Blue helmet	Sweet berries
Ellie Sattler	Raptor Dash	Night Goggles	Left handed digger	Green helmet	Squeaky toys
Roxy Raptor	Ankylosaurus Smash	Fossil Radar	Left handed digger	Red helmet	Squeaky toys
Roy Andrews	Ankylosaurus Smash	Night Goggles	Left handed digger	Red helmet	Sweet berries

CLUE 1

Place value

A computer terminal at the fossil lab displays the thief's escape speed, but the tens digit is blurry.

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

T			T											T				
12	85	57	12	85	82	57	97	68	78	57	25	17	78	12	28	57	16	43
						T												
71	16	64	16	95	78	78	12	25										

What number has 1 ten and 2 ones?

→

T

What number has 8 tens and 2 ones?

→

I

What number has 1 ten and 6 ones?

→

A

What number has 8 tens and 5 ones?

→

H

What number has 1 ten and 7 ones?

→

N

What number has 2 tens and 5 ones?

→

S

What number has 6 tens and 4 ones?

→

V

What number has 6 tens and 8 ones?

→

D

What number has 7 tens and 1 one?

→

L

What number has 5 tens and 7 ones?

→

E

What number has 9 tens and 5 ones?

→

B

What number has 7 tens and 8 ones?

→

O

What number has 2 tens and 8 ones?

→

W

What number has 9 tens and 7 ones?

→

F

What number has 4 tens and 3 ones?

→

R

Scratch space:

CLUE 2 Addition

To track the footsteps, we must count the total dinosaur tracks found in the eastern canyon.

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

T			T										T	
17	12	6	17	12	20	6	19	8	11	18	16	20	17	12

T								T				
17	12	6	20	5	13	6	19	17	12	4	15	8

$6 + 11 = \square \rightarrow \boxed{\text{T}}$

$12 + 8 = \square \rightarrow \boxed{\text{I}}$

$7 + 6 = \square \rightarrow \boxed{\text{L}}$

$11 + 5 = \square \rightarrow \boxed{\text{W}}$

$5 + 1 = \square \rightarrow \boxed{\text{E}}$

$6 + 2 = \square \rightarrow \boxed{\text{D}}$

$3 + 2 = \square \rightarrow \boxed{\text{R}}$

$3 + 8 = \square \rightarrow \boxed{\text{U}}$

$12 + 7 = \square \rightarrow \boxed{\text{F}}$

$6 + 12 = \square \rightarrow \boxed{\text{G}}$

$10 + 5 = \square \rightarrow \boxed{\text{N}}$

$1 + 3 = \square \rightarrow \boxed{\text{A}}$

$4 + 8 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 3

Subtraction

Some giant ferns were crushed by the fleeing suspect, leaving only a few standing in the valley.

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

T			T						T							T	
13	6	15	13	6	8	15	7	12	13	10	1	1	15	3	13	10	
		T					T										
15	4	13	12	16	15	15	13	2	15	5	5	8	15	12			

16 - 3 = → T	15 - 7 = → I	3 - 1 = → B	14 - 4 = → O
5 - 4 = → P	14 - 9 = → R	15 - 9 = → H	14 - 7 = → F
9 - 6 = → D	19 - 3 = → W	13 - 1 = → S	11 - 7 = → A
20 - 5 = → E			

Scratch space:

CLUE 4 Skip counting

The thief dropped clues along the rock path every few steps. We must jump from stone to stone to collect them.

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

T			T								T				
39	55	60	39	55	100	60	6	70	16	25	39	27	24	60	130

					T
55	60	70	14	60	39

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **T**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **R**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **O**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **S**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 → **M**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **E**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 → **L**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **D**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 → **H**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 → **I**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **F**

Scratch space:

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

The camp kitchen was raided. We know how many Dino-bites were cooked, but some are missing.

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:

$3 + \underline{\quad} = 6$

$9 + \underline{\quad} = 15$

$4 + \underline{\quad} = 14$

$8 + \underline{\quad} = 20$

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

$3 + \underline{\quad} = 5$

$6 + \underline{\quad} = 10$

$7 + \underline{\quad} = 16$

$1 + \underline{\quad} = 9$

$7 + \underline{\quad} = 12$

$7 + \underline{\quad} = 8$

Step 2 - cross out the sentence with each answer:

1. The villain crunched a boulder with T-Rex Chomp, then scanned for hidden gold with Fossil Radar.
2. The villain blocked the security net with Triceratops Shield, then shattered the glass cases with Sonic Roar.
3. The villain broke the laboratory lock with Ankylosaurus Smash, then sneaked through the dark with Night Goggles.
4. The villain sprinted past the gates with Raptor Dash, then walked right over the hot vents with Lava Boots.
5. The villain crunched a boulder with T-Rex Chomp, then swung up to the canopy with Vine Lasso.
6. The villain crunched a boulder with T-Rex Chomp, then sneaked through the dark with Night Goggles.
7. The villain blocked the security net with Triceratops Shield, then walked right over the hot vents with Lava Boots.
8. The villain soared over the canyon with Pterodactyl Glide, then shattered the glass cases with Sonic Roar.
9. The villain blocked the security net with Triceratops Shield, then scanned for hidden gold with Fossil Radar.
10. The villain soared over the canyon with Pterodactyl Glide, then swung up to the canopy with Vine Lasso.
11. The villain blocked the security net with Triceratops Shield, then swung up to the canopy with Vine Lasso.
12. The villain blocked the security net with Triceratops Shield, then sneaked through the dark with Night Goggles.

Answer Key

The Great Fossil Fiasco

Culprit: Daisy Dig

Triceratops Shield · Vine Lasso · Left handed digger · Red helmet · Sweet berries

Trail: Start 21 → Clue 1 16 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE THIEF DOES NOT WEAR LAVA BOOTS"

What number has 1 ten and 2 ones? = 12 (T) · What number has 8 tens and 2 ones? = 82 (I) · What number has 1 ten and 6 ones? = 16 (A) · What number has 8 tens and 5 ones? = 85 (H) · What number has 1 ten and 7 ones? = 17 (N) · What number has 2 tens and 5 ones? = 25 (S) · What number has 6 tens and 4 ones? = 64 (V) · What number has 6 tens and 8 ones? = 68 (D) · What number has 7 tens and 1 one? = 71 (L) · What number has 5 tens and 7 ones? = 57 (E) · What number has 9 tens and 5 ones? = 95 (B) · What number has 7 tens and 8 ones? = 78 (O) · What number has 2 tens and 8 ones? = 28 (W) · What number has 9 tens and 7 ones? = 97 (F) · What number has 4 tens and 3 ones? = 43 (R)

Clue 2 (Addition): "THE THIEF DUG WITH THEIR LEFT HAND"

$6 + 11 = 17$ (T) · $12 + 8 = 20$ (I) · $7 + 6 = 13$ (L) · $11 + 5 = 16$ (W) · $5 + 1 = 6$ (E) · $6 + 2 = 8$ (D) · $3 + 2 = 5$ (R) · $3 + 8 = 11$ (U) · $12 + 7 = 19$ (F) · $6 + 12 = 18$ (G) · $10 + 5 = 15$ (N) · $1 + 3 = 4$ (A) · $4 + 8 = 12$ (H)

Clue 3 (Subtraction): "THE THIEF STOPPED TO EAT SWEET BERRIES"

$16 - 3 = 13$ (T) · $15 - 7 = 8$ (I) · $3 - 1 = 2$ (B) · $14 - 4 = 10$ (O) · $5 - 4 = 1$ (P) · $14 - 9 = 5$ (R) · $15 - 9 = 6$ (H) · $14 - 7 = 7$ (F) · $9 - 6 = 3$ (D) · $19 - 3 = 16$ (W) · $13 - 1 = 12$ (S) · $11 - 7 = 4$ (A) · $20 - 5 = 15$ (E)

Clue 4 (Skip counting): "THE THIEF LOST A RED HELMET"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (M) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 = 60 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 = 70 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (I) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (F)

Clue 5 (Missing addends): surviving statement is box 11 → Daisy Dig

$3 + \underline{\quad} = 6 = 3$ · $9 + \underline{\quad} = 15 = 6$ · $4 + \underline{\quad} = 14 = 10$ · $8 + \underline{\quad} = 20 = 12$ · $6 + \underline{\quad} = 13 = 7$ · $3 + \underline{\quad} = 5 = 2$ · $6 + \underline{\quad} = 10 = 4$ · $7 + \underline{\quad} = 16 = 9$ · $1 + \underline{\quad} = 9 = 8$ · $7 + \underline{\quad} = 12 = 5$ · $7 + \underline{\quad} = 8 = 1$