



The Case of the Roaring Dino

Grade 1 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

A sneaky dinosaur scrambled through Dino Valley and took the glowing golden fossil! Help Ranger Rick read the clue notes and solve the mystery!

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 rogue 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	SPECIAL TRAIT	FOOTPRINT	HEAD CREST	SCARED BY
Gideon	Ankylosaurus Armor	Giant Wings	Left Footed Prints	Spiky Frill	Loud Whistle
Sam	T Rex Roar	Camouflage Skin	Right Footed Prints	Spiky Frill	Loud Whistle
Stan	T Rex Roar	Camouflage Skin	Right Footed Prints	Smooth Ridge	Loud Whistle
Mantell	Ankylosaurus Armor	Mud Digging	Left Footed Prints	Spiky Frill	Loud Whistle
Cliff	Triceratops Charge	Camouflage Skin	Right Footed Prints	Smooth Ridge	Loud Whistle
Amber	Stegosaurus Tail Whip	Giant Wings	Left Footed Prints	Feather Crest	Bright Flashlight
Spike	Stegosaurus Tail Whip	Camouflage Skin	Left Footed Prints	Feather Crest	Loud Whistle
Mary	Raptor Dash	Night Vision	Left Footed Prints	Spiky Frill	Loud Whistle
Penny	Triceratops Charge	Lava Immunity	Left Footed Prints	Smooth Ridge	Loud Whistle
Rocky	T Rex Roar	Lava Immunity	Left Footed Prints	Feather Crest	Squeaky Toy
Scotty	Triceratops Charge	Camouflage Skin	Right Footed Prints	Smooth Ridge	Squeaky Toy
Flint	Raptor Dash	Mud Digging	Left Footed Prints	Spiky Frill	Squeaky Toy
Tristan	Ankylosaurus Armor	Lava Immunity	Left Footed Prints	Feather Crest	Loud Whistle
Anning	Raptor Dash	Mud Digging	Left Footed Prints	Feather Crest	Loud Whistle
Daisy	Ankylosaurus Armor	Giant Wings	Right Footed Prints	Feather Crest	Loud Whistle
Bones	Stegosaurus Tail Whip	Mud Digging	Right Footed Prints	Spiky Frill	Squeaky Toy
Barnum	T Rex Roar	Mud Digging	Left Footed Prints	Feather Crest	Bright Flashlight
Dusty	Ankylosaurus Armor	Night Vision	Left Footed Prints	Feather Crest	Loud Whistle
Charlie	Raptor Dash	Mud Digging	Left Footed Prints	Smooth Ridge	Loud Whistle
Echo	T Rex Roar	Camouflage Skin	Left Footed Prints	Spiky Frill	Bright Flashlight
Clover	Triceratops Charge	Giant Wings	Left Footed Prints	Feather Crest	Loud Whistle

CLUE 1 Place value

You check the digit counters on the lab door lock to decode a clue.

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

T																T
14	51	22	93	89	33	33	42	89	77	23	65	22	94	77	65	14

													T		
51	42	93	22	33	42	93	42	89	70	70	74	77	89	14	45

What number has 1 ten and 4 ones?

 → **T**

What number has 4 tens and 5 ones?

 → **Y**

What number has 7 tens and 7 ones?

 → **N**

What number has 7 tens and 0 ones?

 → **M**

What number has 7 tens and 4 ones?

 → **U**

What number has 9 tens and 3 ones?

 → **V**

What number has 2 tens and 3 ones?

 → **D**

What number has 3 tens and 3 ones?

 → **L**

What number has 6 tens and 5 ones?

 → **O**

What number has 4 tens and 2 ones?

 → **A**

What number has 9 tens and 4 ones?

 → **S**

What number has 2 tens and 2 ones?

 → **E**

What number has 5 tens and 1 one?

 → **H**

What number has 8 tens and 9 ones?

 → **I**

Scratch space:

CLUE 2 Addition

You add up all the amber rocks found near the dino nest.

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

T																	
19	9	20	15	18	2	3	8	7	16	2	19	2	4	13	6	20	
7	12	12	14	5	12	10	19	10	13	13	19	14	9	3	8	19	

$11 + 8 = \square \rightarrow$ T	$11 + 4 = \square \rightarrow$ C	$2 + 1 = \square \rightarrow$ I	
$10 + 8 = \square \rightarrow$ K	$12 + 4 = \square \rightarrow$ U	$8 + 6 = \square \rightarrow$ P	
$2 + 3 = \square \rightarrow$ L	$6 + 4 = \square \rightarrow$ F	$3 + 1 = \square \rightarrow$ H	$1 + 5 = \square \rightarrow$ W
$2 + 6 = \square \rightarrow$ N	$8 + 5 = \square \rightarrow$ O	$7 + 2 = \square \rightarrow$ R	$4 + 3 = \square \rightarrow$ D
$5 + 7 = \square \rightarrow$ E	$9 + 11 = \square \rightarrow$ A	$1 + 1 = \square \rightarrow$ S	

Scratch space:

CLUE 3

Subtraction

You count how many fossil teeth are missing from the case.

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

T																
7	5	9	18	1	9	2	14	17	4	8	1	3	16	2	1	
														T		
13	16	3	6	2	11	3	15	4	10	5	8	18	7	11	9	

$13 - 6 = \square \rightarrow \boxed{\text{T}}$

$11 - 7 = \square \rightarrow \boxed{\text{D}}$

$16 - 8 = \square \rightarrow \boxed{\text{I}}$

$20 - 2 = \square \rightarrow \boxed{\text{S}}$

$12 - 9 = \square \rightarrow \boxed{\text{O}}$

$16 - 5 = \square \rightarrow \boxed{\text{L}}$

$20 - 5 = \square \rightarrow \boxed{\text{U}}$

$19 - 3 = \square \rightarrow \boxed{\text{R}}$

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

$17 - 7 = \square \rightarrow \boxed{\text{W}}$

$10 - 1 = \square \rightarrow \boxed{\text{E}}$

$3 - 2 = \square \rightarrow \boxed{\text{N}}$

$16 - 2 = \square \rightarrow \boxed{\text{K}}$

$9 - 3 = \square \rightarrow \boxed{\text{M}}$

$11 - 9 = \square \rightarrow \boxed{\text{A}}$

$6 - 1 = \square \rightarrow \boxed{\text{H}}$

$14 - 1 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 4 Skip counting

You count the footprint trails by twos down the muddy path.

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

S							S					S						
30	16	120	120	10	28	8	30	16	39	40	28	30	15	28	40	8	39	

S															S	
30	120	35	26	35	28	39	26	15	28	9	16	9	28	30	26	

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **S**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **E**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **T**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **H**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **F**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **O**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **R**

Scratch space:

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

You figure out how many more fern leaves are needed to trap the thief.

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:

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

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

$4 + \underline{\quad} = 9$

$1 + \underline{\quad} = 11$

$9 + \underline{\quad} = 20$

$9 + \underline{\quad} = 10$

$1 + \underline{\quad} = 13$

$8 + \underline{\quad} = 14$

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

$10 + \underline{\quad} = 12$

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

Step 2 - cross out the sentence with each answer:

1. The villain dashed like a raptor, then flew above with giant wings.
2. The villain dashed like a raptor, then walked through hot lava rock.
3. The villain bashed with armor, then used night vision in the dark.
4. The villain bashed with armor, then flew above with giant wings.
5. The villain whipped its spiked tail, then blended in with camouflage skin.
6. The villain charged like a trike, then blended in with camouflage skin.
7. The villain dashed like a raptor, then dug deep into the mud.
8. The villain charged like a trike, then flew above with giant wings.
9. The villain whipped its spiked tail, then flew above with giant wings.
10. The villain whipped its spiked tail, then used night vision in the dark.
11. The villain dashed like a raptor, then used night vision in the dark.
12. The villain roared like a rex, then used night vision in the dark.

Answer Key

The Case of the Roaring Dino

Culprit: Dusty

Ankylosaurus Armor · Night Vision · Left Footed Prints · Feather Crest · Loud Whistle

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT HAVE LAVA IMMUNITY"

What number has 1 ten and 4 ones? = 14 (T) · What number has 4 tens and 5 ones? = 45 (Y) · What number has 7 tens and 7 ones? = 77 (N) · What number has 7 tens and 0 ones? = 70 (M) · What number has 7 tens and 4 ones? = 74 (U) · What number has 9 tens and 3 ones? = 93 (V) · What number has 2 tens and 3 ones? = 23 (D) · What number has 3 tens and 3 ones? = 33 (L) · What number has 6 tens and 5 ones? = 65 (O) · What number has 4 tens and 2 ones? = 42 (A) · What number has 9 tens and 4 ones? = 94 (S) · What number has 2 tens and 2 ones? = 22 (E) · What number has 5 tens and 1 one? = 51 (H) · What number has 8 tens and 9 ones? = 89 (I)

Clue 2 (Addition): "TRACKS IN DUST SHOW A DEEP LEFT FOOT PRINT"

$11 + 8 = 19$ (T) · $11 + 4 = 15$ (C) · $2 + 1 = 3$ (I) · $10 + 8 = 18$ (K) · $12 + 4 = 16$ (U) · $8 + 6 = 14$ (P) · $2 + 3 = 5$ (L) · $6 + 4 = 10$ (F) · $3 + 1 = 4$ (H) · $1 + 5 = 6$ (W) · $2 + 6 = 8$ (N) · $8 + 5 = 13$ (O) · $7 + 2 = 9$ (R) · $4 + 3 = 7$ (D) · $5 + 7 = 12$ (E) · $9 + 11 = 20$ (A) · $1 + 1 = 2$ (S)

Clue 3 (Subtraction): "THE SNEAKY DINO RAN FROM A LOUD WHISTLE"

$13 - 6 = 7$ (T) · $11 - 7 = 4$ (D) · $16 - 8 = 8$ (I) · $20 - 2 = 18$ (S) · $12 - 9 = 3$ (O) · $16 - 5 = 11$ (L) · $20 - 5 = 15$ (U) · $19 - 3 = 16$ (R) · $19 - 2 = 17$ (Y) · $17 - 7 = 10$ (W) · $10 - 1 = 9$ (E) · $3 - 2 = 1$ (N) · $16 - 2 = 14$ (K) · $9 - 3 = 6$ (M) · $11 - 9 = 2$ (A) · $6 - 1 = 5$ (H) · $14 - 1 = 13$ (F)

Clue 4 (Skip counting): "SCOOPED SCALES HELD A SOFT FEATHER CREST"

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 = 40 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (P) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (C) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (F) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (O) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (R)

Clue 5 (Missing addends): surviving statement is box 3 → Dusty

$9 + \underline{\quad} = 16 = 7$ · $6 + \underline{\quad} = 14 = 8$ · $4 + \underline{\quad} = 9 = 5$ · $1 + \underline{\quad} = 11 = 10$ · $9 + \underline{\quad} = 20 = 11$ · $9 + \underline{\quad} = 10 = 1$ · $1 + \underline{\quad} = 13 = 12$ · $8 + \underline{\quad} = 14 = 6$ · $6 + \underline{\quad} = 10 = 4$ · $10 + \underline{\quad} = 12 = 2$ · $7 + \underline{\quad} = 16 = 9$