



The Case of the Vine Bandit

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

Detective: _____ **Date:** _____

The Parrot King is missing from his treetop throne. Big leaves are torn, and muddy tracks lead deep into the Green Tangle. Only a clever detective can follow the clues and free the king.

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 Vine Bandit is _____

Possible suspects

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

NAME	JUNGLE MOVE	SNEAKY TRICK	WITNESS SAW	FUR COLOR	WEAKNESS
Nala	River Leap	Mud Splash	Boy	Black Fur	Ticklish
Zuri	Loud Roar	Fruit Toss	Boy	Black Fur	Hates Loud Sounds
Pip	Tree Climb	Net Trap	Boy	Golden Fur	Hates Loud Sounds
Willow	Tree Climb	Bug Call	Boy	Brown Fur	Hates Loud Sounds
Brooke	Leaf Hide	Fruit Toss	Girl	Brown Fur	Scared of Snakes
Suki	Tree Climb	Bug Call	Girl	Black Fur	Hates Loud Sounds
Kiki	Leaf Hide	Fruit Toss	Boy	Brown Fur	Hates Loud Sounds
Twig	Vine Swing	Net Trap	Boy	Black Fur	Hates Loud Sounds
Coco	River Leap	Bug Call	Girl	Golden Fur	Hates Loud Sounds
Bongo	River Leap	Fruit Toss	Boy	Black Fur	Scared of Snakes
Banjo	Vine Swing	Drum Beat	Boy	Golden Fur	Hates Loud Sounds
Tango	Leaf Hide	Net Trap	Girl	Black Fur	Hates Loud Sounds
Jojo	Loud Roar	Drum Beat	Boy	Black Fur	Hates Loud Sounds
Bibi	Vine Swing	Fruit Toss	Boy	Black Fur	Hates Loud Sounds
Rumi	Vine Swing	Net Trap	Girl	Golden Fur	Ticklish
Hazel	Leaf Hide	Net Trap	Boy	Golden Fur	Hates Loud Sounds
Lola	River Leap	Drum Beat	Boy	Black Fur	Ticklish
Tiko	Vine Swing	Mud Splash	Boy	Black Fur	Hates Loud Sounds
Momo	Loud Roar	Fruit Toss	Girl	Black Fur	Hates Loud Sounds
Fern	Tree Climb	Bug Call	Girl	Golden Fur	Hates Loud Sounds
Hugo	Tree Climb	Fruit Toss	Boy	Black Fur	Ticklish

CLUE 1
Place value (tens & ones)

The Parrot King is gone! A leaf has a number scratched in it. Read the tens and ones to find your first clue.

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

T 17	68	50	18	77	45	45	32	77	13	43	32	13	13	24	T 17	47	35	24	39
13	50	T 17	T 17	35	32	39	71												

What number has 1 ten and 7 ones?

→

T

What number has 7 tens and 1 one?

→

S

What number has 4 tens and 7 ones?

→

D

What number has 7 tens and 7 ones?

→

I

What number has 1 ten and 8 ones?

→

V

What number has 4 tens and 5 ones?

→

L

What number has 1 ten and 3 ones?

→

N

What number has 3 tens and 2 ones?

→

A

What number has 5 tens and 0 ones?

→

E

What number has 6 tens and 8 ones?

→

H

What number has 3 tens and 5 ones?

→

R

What number has 3 tens and 9 ones?

→

P

What number has 2 tens and 4 ones?

→

O

What number has 4 tens and 3 ones?

→

C

Scratch space:

CLUE 2 **Addition**

The thief left piles of bananas by the path. Count and add them up to learn the next clue.

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

A 97	31	46	24	54	34	48	48	48	A 97	31	24	81	34	24	81	46	34	63
31	A 97	48	A 97	32	65	70												

58 + 39 = → A	15 + 19 = → E	15 + 17 = → B
12 + 12 = → T	36 + 29 = → O	30 + 24 = → N
26 + 37 = → F	21 + 25 = → I	57 + 24 = → H
9 + 22 = → W	15 + 33 = → S	21 + 49 = → Y

Scratch space:

CLUE 3

Subtraction

Some mangoes were taken from the king's basket. Take away to see how many are left and find a clue.

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

A											A								
28	88	81	19	58	55	81	44	69	68	28	58	12	11	26	44	19	69		

81	56	56

$45 - 17 = \boxed{} \rightarrow \boxed{\text{A}}$

$52 - 40 = \boxed{} \rightarrow \boxed{\text{E}}$

$99 - 30 = \boxed{} \rightarrow \boxed{\text{N}}$

$91 - 23 = \boxed{} \rightarrow \boxed{\text{M}}$

$72 - 16 = \boxed{} \rightarrow \boxed{\text{F}}$

$41 - 30 = \boxed{} \rightarrow \boxed{\text{I}}$

$52 - 26 = \boxed{} \rightarrow \boxed{\text{T}}$

$121 - 33 = \boxed{} \rightarrow \boxed{\text{L}}$

$54 - 10 = \boxed{} \rightarrow \boxed{\text{R}}$

$119 - 38 = \boxed{} \rightarrow \boxed{\text{O}}$

$56 - 1 = \boxed{} \rightarrow \boxed{\text{H}}$

$69 - 11 = \boxed{} \rightarrow \boxed{\text{D}}$

$23 - 4 = \boxed{} \rightarrow \boxed{\text{U}}$

Scratch space:

CLUE 4 Skip counting

Wet footprints march along in neat groups. Skip count by twos and fives to follow the trail to a clue.

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

B																	
110	12	16	33	140	18	45	27	30	16	21	18	65	45	15	24	100	15
10	40	70	50	45	24												

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **B**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 → **W**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **K**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **U**

Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 → **N**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **D**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 → **C**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **L**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **S**

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **O**

Scratch space:

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

You need a full bunch of bananas to trade a wise toucan for help. Find how many more you need to get the last clue.

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:

$4 + \underline{\quad} = 16$

$7 + \underline{\quad} = 14$

$3 + \underline{\quad} = 4$

$5 + \underline{\quad} = 9$

$10 + \underline{\quad} = 19$

$5 + \underline{\quad} = 13$

$4 + \underline{\quad} = 6$

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

$6 + \underline{\quad} = 16$

$7 + \underline{\quad} = 10$

$3 + \underline{\quad} = 9$

Step 2 - cross out the sentence with each answer:

1. The villain roars to scare everyone, then beats a loud jungle drum.
2. The villain roars to scare everyone, then calls a swarm of buzzing bugs.
3. The villain leaps across the wide river, then drops a sneaky net trap.
4. The villain climbs up a tall tree, then tosses sticky fruit.
5. The villain climbs up a tall tree, then drops a sneaky net trap.
6. The villain roars to scare everyone, then drops a sneaky net trap.
7. The villain swings in on a long vine, then tosses sticky fruit.
8. The villain leaps across the wide river, then calls a swarm of buzzing bugs.
9. The villain swings in on a long vine, then calls a swarm of buzzing bugs.
10. The villain swings in on a long vine, then beats a loud jungle drum.
11. The villain swings in on a long vine, then splashes mud everywhere.
12. The villain roars to scare everyone, then tosses sticky fruit.

Answer Key

The Case of the Vine Bandit

Culprit: Tiko

Vine Swing · Mud Splash · Boy · Black Fur · Hates Loud Sounds

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

Clue 1 (Place value (tens & ones)): "THE VILLAIN CANNOT DROP NET TRAPS"

What number has 1 ten and 7 ones? = 17 (T) · What number has 7 tens and 1 one? = 71 (S) · What number has 4 tens and 7 ones? = 47 (D) · What number has 7 tens and 7 ones? = 77 (I) · What number has 1 ten and 8 ones? = 18 (V) · What number has 4 tens and 5 ones? = 45 (L) · What number has 1 ten and 3 ones? = 13 (N) · What number has 3 tens and 2 ones? = 32 (A) · What number has 5 tens and 0 ones? = 50 (E) · What number has 6 tens and 8 ones? = 68 (H) · What number has 3 tens and 5 ones? = 35 (R) · What number has 3 tens and 9 ones? = 39 (P) · What number has 2 tens and 4 ones? = 24 (O) · What number has 4 tens and 3 ones? = 43 (C)

Clue 2 (Addition): "A WITNESS SAW THE THIEF WAS A BOY"

$58 + 39 = 97$ (A) · $15 + 19 = 34$ (E) · $15 + 17 = 32$ (B) · $12 + 12 = 24$ (T) · $36 + 29 = 65$ (O) · $30 + 24 = 54$ (N) · $26 + 37 = 63$ (F) · $21 + 25 = 46$ (I) · $57 + 24 = 81$ (H) · $9 + 22 = 31$ (W) · $15 + 33 = 48$ (S) · $21 + 49 = 70$ (Y)

Clue 3 (Subtraction): "A LOUD HORN MADE IT RUN OFF"

$45 - 17 = 28$ (A) · $52 - 40 = 12$ (E) · $99 - 30 = 69$ (N) · $91 - 23 = 68$ (M) · $72 - 16 = 56$ (F) · $41 - 30 = 11$ (I) · $52 - 26 = 26$ (T) · $121 - 33 = 88$ (L) · $54 - 10 = 44$ (R) · $119 - 38 = 81$ (O) · $56 - 1 = 55$ (H) · $69 - 11 = 58$ (D) · $23 - 4 = 19$ (U)

Clue 4 (Skip counting): "BLACK FUR WAS FOUND IN THE MUD"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (B) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 = 30 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (K) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (U) · Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 = 15 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (D) · Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 = 40 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (C) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 = 70 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 = 12 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (S) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 = 50 (M) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (O)

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

$4 + \underline{\quad} = 16 = 12$ · $7 + \underline{\quad} = 14 = 7$ · $3 + \underline{\quad} = 4 = 1$ · $5 + \underline{\quad} = 9 = 4$ · $10 + \underline{\quad} = 19 = 9$ · $5 + \underline{\quad} = 13 = 8$ · $4 + \underline{\quad} = 6 = 2$ · $7 + \underline{\quad} = 12 = 5$ · $6 + \underline{\quad} = 16 = 10$ · $7 + \underline{\quad} = 10 = 3$ · $3 + \underline{\quad} = 9 = 6$