



Case of the Vine Snatcher

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

Detective: _____ Date: _____

The Parrot Queen is gone! Someone snatched her from her nest at dawn. You are the best young tracker in the Green Vine Jungle, and the animals need you to find the sneaky Vine Snatcher.

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 Snatcher is _____

Possible suspects

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

NAME	WAY OF MOVING	JUNGLE TRICK	ANIMAL TYPE	FUR COLOR	SCARED OF
Lulu	leaps tree to tree	digs deep tunnels	furry beast	green fur	loud drums
Berry	glides from branches	climbs tall trees	furry beast	spotted fur	loud drums
Pax	leaps tree to tree	climbs tall trees	scaly beast	green fur	bright torches
Fern	glides from branches	climbs tall trees	scaly beast	brown fur	bright torches
Bongo	stomps the path	climbs tall trees	scaly beast	spotted fur	bright torches
Roko	swings on vines	hides in mud pools	scaly beast	spotted fur	bright torches
Mira	glides from branches	climbs tall trees	scaly beast	spotted fur	bright torches
Tula	glides from branches	hides in mud pools	scaly beast	spotted fur	bright torches
Zazu	slithers on the ground	digs deep tunnels	scaly beast	brown fur	loud drums
Bandit	leaps tree to tree	hides in mud pools	furry beast	green fur	buzzing bees
Pesto	glides from branches	digs deep tunnels	furry beast	brown fur	loud drums
Vela	stomps the path	climbs tall trees	scaly beast	green fur	buzzing bees
Dax	swings on vines	hides in mud pools	scaly beast	green fur	bright torches
Sunny	glides from branches	climbs tall trees	scaly beast	brown fur	loud drums
Juno	slithers on the ground	climbs tall trees	scaly beast	green fur	buzzing bees
Niko	slithers on the ground	digs deep tunnels	scaly beast	spotted fur	bright torches
Tango	stomps the path	calls loud howls	furry beast	spotted fur	bright torches
Rumba	swings on vines	calls loud howls	scaly beast	spotted fur	loud drums
Pippa	leaps tree to tree	calls loud howls	furry beast	brown fur	buzzing bees
Kiko	stomps the path	swims fast rivers	scaly beast	spotted fur	bright torches
Milo	swings on vines	hides in mud pools	scaly beast	green fur	loud drums

CLUE 1
Place value (tens & ones)

You find muddy paw prints at the nest. You count the tens and ones in the tracks to learn one trick the snatcher cannot do.

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

T																			
33	13	73	34	42	77	77	60	42	16	81	60	16	16	99	33	13	42	64	73
42	16	86	22	64	74	99	99	77	61										

What number has 3 tens and 3 ones? → **T**

What number has 4 tens and 2 ones? → **I**

What number has 6 tens and 0 ones? → **A**

What number has 1 ten and 6 ones? → **N**

What number has 7 tens and 3 ones? → **E**

What number has 3 tens and 4 ones? → **V**

What number has 6 tens and 1 one? → **S**

What number has 7 tens and 7 ones? → **L**

What number has 9 tens and 9 ones? → **O**

What number has 7 tens and 4 ones? → **P**

What number has 6 tens and 4 ones? → **D**

What number has 1 ten and 3 ones? → **H**

What number has 8 tens and 1 one? → **C**

What number has 8 tens and 6 ones? → **M**

What number has 2 tens and 2 ones? → **U**

Scratch space:

CLUE 2

Addition

The toucans saw the snatcher drop fruit while running away. You add up the fallen fruit to spot who it was.

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

A																
71	83	77	68	95	48	87	87	87	71	83	71	87	53	71	43	64

27	48	71	87	68	72	54	95	27	64

$28 + 43 = \square \rightarrow \boxed{\text{A}}$

$50 + 45 = \square \rightarrow \boxed{\text{N}}$

$51 + 26 = \square \rightarrow \boxed{\text{I}}$

$16 + 38 = \square \rightarrow \boxed{\text{U}}$

$32 + 32 = \square \rightarrow \boxed{\text{Y}}$

$34 + 49 = \square \rightarrow \boxed{\text{W}}$

$26 + 22 = \square \rightarrow \boxed{\text{E}}$

$36 + 32 = \square \rightarrow \boxed{\text{T}}$

$27 + 26 = \square \rightarrow \boxed{\text{C}}$

$44 + 43 = \square \rightarrow \boxed{\text{S}}$

$17 + 10 = \square \rightarrow \boxed{\text{B}}$

$43 + 29 = \square \rightarrow \boxed{\text{R}}$

$30 + 13 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

CLUE 3

Subtraction

Some bananas got eaten on the trail. You take away the eaten ones from the bunch to find the next clue.

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

W																
11	41	74	20	19	40	41	16	27	59	73	62	62	11	27	59	35

75	40	27	31	35	59	59	73	40	20	35	41	74

$48 - 37 = \square \rightarrow \boxed{\text{W}}$

$90 - 28 = \square \rightarrow \boxed{\text{F}}$

$64 - 23 = \square \rightarrow \boxed{\text{E}}$

$67 - 36 = \square \rightarrow \boxed{\text{G}}$

$104 - 31 = \square \rightarrow \boxed{\text{O}}$

$33 - 6 = \square \rightarrow \boxed{\text{I}}$

$42 - 2 = \square \rightarrow \boxed{\text{R}}$

$97 - 38 = \square \rightarrow \boxed{\text{T}}$

$60 - 40 = \square \rightarrow \boxed{\text{C}}$

$64 - 29 = \square \rightarrow \boxed{\text{H}}$

$51 - 35 = \square \rightarrow \boxed{\text{D}}$

$102 - 28 = \square \rightarrow \boxed{\text{S}}$

$21 - 2 = \square \rightarrow \boxed{\text{A}}$

$112 - 37 = \square \rightarrow \boxed{\text{B}}$

Scratch space:

CLUE 4

Skip counting

Footprints march in pairs down the path. You skip count the prints by twos to follow the trail.

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

W																		
26	120	36	28	140	45	14	30	22	28	70	70	120	14	36	140	42	28	45
70	50	120	45	120	30	70												

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **R**

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

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

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

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **F**

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

Scratch space:

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

You find a torn vine with a few knots missing. You figure out the missing knots to name the Vine Snatcher.

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:

$10 + \underline{\quad} = 14$

$2 + \underline{\quad} = 10$

$8 + \underline{\quad} = 9$

$1 + \underline{\quad} = 8$

$4 + \underline{\quad} = 15$

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

$8 + \underline{\quad} = 13$

$8 + \underline{\quad} = 18$

$9 + \underline{\quad} = 12$

$10 + \underline{\quad} = 22$

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

Step 2 - cross out the sentence with each answer:

1. The villain stomps the path, then swims fast rivers.
2. The villain slithers on the ground, then digs deep tunnels.
3. The villain glides from branches, then digs deep tunnels.
4. The villain glides from branches, then climbs tall trees.
5. The villain swings on vines, then digs deep tunnels.
6. The villain leaps tree to tree, then hides in mud pools.
7. The villain glides from branches, then calls loud howls.
8. The villain stomps the path, then climbs tall trees.
9. The villain stomps the path, then calls loud howls.
10. The villain leaps tree to tree, then digs deep tunnels.
11. The villain slithers on the ground, then climbs tall trees.
12. The villain stomps the path, then hides in mud pools.

Answer Key

Case of the Vine Snatcher

Culprit: Niko

slithers on the ground · digs deep tunnels · scaly beast · spotted fur · bright torches

Trail: Start 21 → Clue 1 16 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value (tens & ones)): "THE VILLAIN CANNOT HIDE IN MUD POOLS"

What number has 3 tens and 3 ones? = 33 (T) · What number has 4 tens and 2 ones? = 42 (I) · What number has 6 tens and 0 ones? = 60 (A) · What number has 1 ten and 6 ones? = 16 (N) · What number has 7 tens and 3 ones? = 73 (E) · What number has 3 tens and 4 ones? = 34 (V) · What number has 6 tens and 1 one? = 61 (S) · What number has 7 tens and 7 ones? = 77 (L) · What number has 9 tens and 9 ones? = 99 (O) · What number has 7 tens and 4 ones? = 74 (P) · What number has 6 tens and 4 ones? = 64 (D) · What number has 1 ten and 3 ones? = 13 (H) · What number has 8 tens and 1 one? = 81 (C) · What number has 8 tens and 6 ones? = 86 (M) · What number has 2 tens and 2 ones? = 22 (U)

Clue 2 (Addition): "A WITNESS SAW A SCALY BEAST RUN BY"

$28 + 43 = 71$ (A) · $50 + 45 = 95$ (N) · $51 + 26 = 77$ (I) · $16 + 38 = 54$ (U) · $32 + 32 = 64$ (Y) · $34 + 49 = 83$ (W) · $26 + 22 = 48$ (E) · $36 + 32 = 68$ (T) · $27 + 26 = 53$ (C) · $44 + 43 = 87$ (S) · $17 + 10 = 27$ (B) · $43 + 29 = 72$ (R) · $30 + 13 = 43$ (L)

Clue 3 (Subtraction): "WE SCARED IT OFF WITH BRIGHT TORCHES"

$48 - 37 = 11$ (W) · $90 - 28 = 62$ (F) · $64 - 23 = 41$ (E) · $67 - 36 = 31$ (G) · $104 - 31 = 73$ (O) · $33 - 6 = 27$ (I) · $42 - 2 = 40$ (R) · $97 - 38 = 59$ (T) · $60 - 40 = 20$ (C) · $64 - 29 = 35$ (H) · $51 - 35 = 16$ (D) · $102 - 28 = 74$ (S) · $21 - 2 = 19$ (A) · $112 - 37 = 75$ (B)

Clue 4 (Skip counting): "WE FOUND SPOTTED FUR ON THE NEST"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (E) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 = 50 (H) · Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (D) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (P) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 = 70 (T)

Clue 5 (Missing addends): surviving statement is box 2 → Niko

$10 + \underline{\quad} = 14 = 4$ · $2 + \underline{\quad} = 10 = 8$ · $8 + \underline{\quad} = 9 = 1$ · $1 + \underline{\quad} = 8 = 7$ · $4 + \underline{\quad} = 15 = 11$ · $10 + \underline{\quad} = 19 = 9$ · $8 + \underline{\quad} = 13 = 5$ · $8 + \underline{\quad} = 18 = 10$ · $9 + \underline{\quad} = 12 = 3$ · $10 + \underline{\quad} = 22 = 12$ · $3 + \underline{\quad} = 9 = 6$