



The Case of the Missing Star Sparkles

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

Detective: _____ Date: _____

Someone snatched the glowing star sprinkles from Crystal Meadow! Help Detective Sparkle Hoof trace the clues and catch the sneaky unicorn.

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 Glitter Thief is _____

Possible suspects

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

NAME	MAGIC POWER	CHARM ACCESSORY	HOOF TAPPER	MANE COLOR	WEAKNESS
Sunbeam	Rainbow Blast	Pink Ribbon	Left Hoof Tapper	Blue Mane	Loud Whistles
Jewel	Crystal Glow	Jewel Crown	Left Hoof Tapper	Blue Mane	Loud Whistles
Prance	Star Shine	Star Badge	Left Hoof Tapper	Purple Mane	Sweet Apples
Pippin	Cloud Dash	Golden Bell	Right Hoof Tapper	Purple Mane	Loud Whistles
Starlight	Star Shine	Silver Charm	Left Hoof Tapper	Purple Mane	Loud Whistles
Petal	Cloud Dash	Jewel Crown	Left Hoof Tapper	Pink Mane	Sweet Apples
Flutter	Crystal Glow	Pink Ribbon	Left Hoof Tapper	Purple Mane	Loud Whistles
Cloudy	Cloud Dash	Star Badge	Right Hoof Tapper	Pink Mane	Shiny Mirrors
Breeze	Rainbow Blast	Pink Ribbon	Right Hoof Tapper	Pink Mane	Sweet Apples
Sunny	Flower Growth	Golden Bell	Right Hoof Tapper	Purple Mane	Loud Whistles
Rainbow	Rainbow Blast	Golden Bell	Left Hoof Tapper	Purple Mane	Loud Whistles
Sparky	Flower Growth	Golden Bell	Right Hoof Tapper	Pink Mane	Shiny Mirrors
Sky	Flower Growth	Silver Charm	Left Hoof Tapper	Pink Mane	Sweet Apples
Meadow	Cloud Dash	Pink Ribbon	Left Hoof Tapper	Pink Mane	Loud Whistles
Dazzle	Cloud Dash	Jewel Crown	Left Hoof Tapper	Blue Mane	Shiny Mirrors
Shimmer	Flower Growth	Jewel Crown	Left Hoof Tapper	Purple Mane	Shiny Mirrors
Twinkle	Cloud Dash	Star Badge	Left Hoof Tapper	Pink Mane	Sweet Apples
Velvet	Rainbow Blast	Jewel Crown	Left Hoof Tapper	Pink Mane	Shiny Mirrors
Nova	Cloud Dash	Jewel Crown	Left Hoof Tapper	Purple Mane	Loud Whistles
Glimmer	Cloud Dash	Silver Charm	Left Hoof Tapper	Purple Mane	Loud Whistles
Buttercup	Star Shine	Star Badge	Left Hoof Tapper	Pink Mane	Loud Whistles

CLUE 1 Addition

Detective Sparkle Hoof finds two piles of glittering gems. Add them together to see how many gems were saved.

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

T																T
9	8	5	13	12	20	20	11	12	10	18	7	5	6	10	7	9

17	5	11	4	11	16	12	10	14	4	12	3	3	7	10		

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

Scratch space:

CLUE 2

Subtraction

The thief dropped several glowing crystals along the path. Subtract to find out how many crystals remain.

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

T					T											T	
6	3	2	19	8	6	17	2	10	10	10	18	19	18	16	2	4	6

				T						
3	11	11	4	6	18	14	14	2	9	

$9 - 3 = \square \rightarrow \text{T}$

$11 - 1 = \square \rightarrow \text{S}$

$20 - 3 = \square \rightarrow \text{N}$

$11 - 9 = \square \rightarrow \text{E}$

$6 - 2 = \square \rightarrow \text{F}$

$18 - 7 = \square \rightarrow \text{O}$

$17 - 1 = \square \rightarrow \text{L}$

$20 - 1 = \square \rightarrow \text{W}$

$17 - 9 = \square \rightarrow \text{I}$

$20 - 2 = \square \rightarrow \text{A}$

$13 - 4 = \square \rightarrow \text{R}$

$4 - 1 = \square \rightarrow \text{H}$

$20 - 6 = \square \rightarrow \text{P}$

Scratch space:

CLUE 3 Skip counting

A trail of tiny hoofprints counts by twos across the soft grass. Skip count to follow the path!

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

A													A						
16	25	90	80	20	24	60	70	35	22	25	8	42	16	20	8	22	60	8	
				A															
39	70	25	25	16	70	55	36	80	55										

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, __, 25, 30 → **D**

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

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

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

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

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

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

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

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

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **H**

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

Scratch space:

CLUE 4 Place value

A magic clue chest is locked with tens and ones blocks. Match the place values to open the lock.

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

A								A								
58	35	99	49	35	11	77	56	58	24	77	39	63	49	58	24	59

	A					
36	58	39	62	93	99	24

What number has 5 tens and 8 ones? → **A**

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

What number has 9 tens and 3 ones? → **O**

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

What number has 3 tens and 9 ones? → **S**

What number has 4 tens and 9 ones? → **R**

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

What number has 6 tens and 2 ones? → **F**

What number has 3 tens and 5 ones? → **P**

What number has 3 tens and 6 ones? → **W**

What number has 5 tens and 9 ones? → **D**

What number has 6 tens and 3 ones? → **T**

What number has 1 ten and 1 one? → **L**

What number has 5 tens and 6 ones? → **M**

Scratch space:

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

Some star sprinkles are missing from the magic jar. Find the missing number to fill the jar back up!

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:

$6 + \underline{\quad} = 17$

$2 + \underline{\quad} = 12$

$9 + \underline{\quad} = 18$

$2 + \underline{\quad} = 6$

$9 + \underline{\quad} = 11$

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

$3 + \underline{\quad} = 15$

$5 + \underline{\quad} = 8$

$9 + \underline{\quad} = 17$

$5 + \underline{\quad} = 11$

$1 + \underline{\quad} = 6$

Step 2 - cross out the sentence with each answer:

1. The villain blasted rainbows everywhere, then dropped a golden bell.
2. The villain grew giant magic flowers, then lost a silver charm.
3. The villain dashed across cloud paths, then untied a pink ribbon.
4. The villain lit up crystal rocks, then pinned a star badge.
5. The villain lit up crystal rocks, then lost a silver charm.
6. The villain grew giant magic flowers, then pinned a star badge.
7. The villain lit up crystal rocks, then dropped a golden bell.
8. The villain lit up crystal rocks, then untied a pink ribbon.
9. The villain shined star energy around, then lost a silver charm.
10. The villain dashed across cloud paths, then polished a jewel crown.
11. The villain dashed across cloud paths, then lost a silver charm.
12. The villain blasted rainbows everywhere, then lost a silver charm.

Answer Key

The Case of the Missing Star Sparkles

Culprit: Rainbow

Rainbow Blast · Golden Bell · Left Hoof Tapper · Purple Mane · Loud Whistles

Trail: Start 21 → Clue 1 17 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT WEAR A PINK RIBBON"

$4 + 5 = 9$ (T) · $10 + 7 = 17$ (W) · $2 + 1 = 3$ (B) · $6 + 2 = 8$ (H) · $5 + 11 = 16$ (P) · $3 + 10 = 13$ (V) · $7 + 5 = 12$ (I) · $4 + 1 = 5$ (E) · $5 + 6 = 11$ (A) · $11 + 7 = 18$ (D) · $3 + 4 = 7$ (O) · $4 + 6 = 10$ (N) · $8 + 12 = 20$ (L) · $1 + 3 = 4$ (R) · $6 + 8 = 14$ (K) · $5 + 1 = 6$ (S)

Clue 2 (Subtraction): "THE WITNESS SAW A LEFT HOOF TAPPER"

$9 - 3 = 6$ (T) · $11 - 1 = 10$ (S) · $20 - 3 = 17$ (N) · $11 - 9 = 2$ (E) · $6 - 2 = 4$ (F) · $18 - 7 = 11$ (O) · $17 - 1 = 16$ (L) · $20 - 1 = 19$ (W) · $17 - 9 = 8$ (I) · $20 - 2 = 18$ (A) · $13 - 4 = 9$ (R) · $4 - 1 = 3$ (H) · $20 - 6 = 14$ (P)

Clue 3 (Skip counting): "A LOUD WHISTLE MADE THE VILLAIN RUN"

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

Clue 4 (Place value): "A PURPLE MANE STRAND WAS FOUND"

What number has 5 tens and 8 ones? = 58 (A) · What number has 7 tens and 7 ones? = 77 (E) · What number has 9 tens and 3 ones? = 93 (O) · What number has 2 tens and 4 ones? = 24 (N) · What number has 3 tens and 9 ones? = 39 (S) · What number has 4 tens and 9 ones? = 49 (R) · What number has 9 tens and 9 ones? = 99 (U) · What number has 6 tens and 2 ones? = 62 (F) · What number has 3 tens and 5 ones? = 35 (P) · What number has 3 tens and 6 ones? = 36 (W) · What number has 5 tens and 9 ones? = 59 (D) · What number has 6 tens and 3 ones? = 63 (T) · What number has 1 ten and 1 one? = 11 (L) · What number has 5 tens and 6 ones? = 56 (M)

Clue 5 (Missing addends): surviving statement is box 1 → Rainbow

$6 + \underline{\quad} = 17 = 11$ · $2 + \underline{\quad} = 12 = 10$ · $9 + \underline{\quad} = 18 = 9$ · $2 + \underline{\quad} = 6 = 4$ · $9 + \underline{\quad} = 11 = 2$ · $1 + \underline{\quad} = 8 = 7$ · $3 + \underline{\quad} = 15 = 12$ · $5 + \underline{\quad} = 8 = 3$ · $9 + \underline{\quad} = 17 = 8$ · $5 + \underline{\quad} = 11 = 6$ · $1 + \underline{\quad} = 6 = 5$