



The Case of the Missing Starlight Horn

Grade 5 math · Skip counting, Rounding, Multiplication, Fractions of a number, Missing addends · Reading level grades 5-6

Detective: _____ Date: _____

Someone snuck into the Crystal Meadow Sanctuary and swapped the Glowing Starlight Horn with a fake glass sculpture. Solve the clues to reveal the culprit!

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 horn 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 SPARKLE	HORN POWER	HOOF MARK	MANE COLOR	FAVORITE TREAT
Lucian Luster	Starlight Shield	Levitation	Right Hoofprint	Silver Mane	Moon Berries
Rosalind Ray	Melody Humming	Teleportation	Right Hoofprint	Golden Mane	Sparkle Apples
Silas Spark	Rainbow Beam	Teleportation	Left Hoofprint	Silver Mane	Moon Berries
Beatrix Breeze	Cloud Floating	Levitation	Right Hoofprint	Golden Mane	Moon Berries
Tristan Twinkle	Melody Humming	Ice Freezing	Right Hoofprint	Silver Mane	Moon Berries
Rory Radiant	Starlight Shield	Ice Freezing	Right Hoofprint	Silver Mane	Sweet Clover
Aurelia Hoof	Rainbow Beam	Ice Freezing	Left Hoofprint	Violet Mane	Sweet Clover
Gweneth Glimmer	Rainbow Beam	Levitation	Right Hoofprint	Silver Mane	Sparkle Apples
Celestia Nova	Melody Humming	Teleportation	Right Hoofprint	Golden Mane	Sweet Clover
Felix Frost	Rainbow Beam	Super Speed	Right Hoofprint	Silver Mane	Sweet Clover
Cordelia Comet	Cloud Floating	Teleportation	Left Hoofprint	Golden Mane	Sparkle Apples
Julian Prism	Melody Humming	Ice Freezing	Right Hoofprint	Violet Mane	Sweet Clover
Darius Dawn	Cloud Floating	Levitation	Right Hoofprint	Golden Mane	Sparkle Apples
Thaddeus Trot	Gem Creation	Levitation	Left Hoofprint	Silver Mane	Moon Berries
Jasper Prance	Cloud Floating	Ice Freezing	Right Hoofprint	Silver Mane	Moon Berries
Barnaby Braid	Gem Creation	Time Rewind	Right Hoofprint	Silver Mane	Moon Berries
Penelope Pastel	Starlight Shield	Time Rewind	Left Hoofprint	Silver Mane	Sparkle Apples
Seraphina Star	Starlight Shield	Super Speed	Right Hoofprint	Silver Mane	Moon Berries
Valerie Velvet	Gem Creation	Teleportation	Left Hoofprint	Silver Mane	Sweet Clover
Gideon Glitter	Gem Creation	Levitation	Right Hoofprint	Violet Mane	Moon Berries
Cassandra Crest	Cloud Floating	Teleportation	Left Hoofprint	Violet Mane	Moon Berries

CLUE 1

The sanctuary trail is marked by stepping stones spaced in equal patterns. Count along the path to unlock the first clue.

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

Diagram illustrating a sequence of numbers arranged in two rows. The numbers are grouped into sets of four, with the last group containing only two numbers. The numbers are: 130, 15, 8, 27, 12, 27, 18, 8, 90, 130, 45, 55, 8, 27, 33, 55, 130. The numbers 130 are highlighted in orange and labeled with a 'T'.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Scratch space:

CLUE 2 Rounding

The crystal scanner shows energy levels rounded to the nearest hundred. Round each reading to reveal the next message.

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

T			T								T						
3000	230	90	3000	230	3700	90	200	20	90	200	3000	1300	4300	20	90	1300	110

				T									T
110	3700	700	230	3000	230	500	500	200	370	110	3700	2900	3000

Round 2,902 to the nearest thousand → **T**

Round 4,285 to the nearest hundred → **C**

Round 1,326 to the nearest hundred → **A**

Round 21 to the nearest ten → **L**

Round 188 to the nearest hundred → **F**

Round 3,719 to the nearest hundred → **I**

Round 670 to the nearest hundred → **G**

Round 527 to the nearest hundred → **O**

Round 89 to the nearest ten → **E**

Round 232 to the nearest ten → **H**

Round 108 to the nearest ten → **R**

Round 374 to the nearest ten → **P**

Round 2,891 to the nearest hundred → **N**

Scratch space:

CLUE 3
Multiplication facts (1-12)

Enchanted stable boxes are arranged in equal rows and columns. Multiply the grid counts to decipher the clue.

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

T			T									T						
90	54	5	90	54	42	5	70	14	32	20	20	90	1	66	66	5	10	

9	77	36	1	1	40	9	5	120	120	42	5	20						

$9 \times 10 = \square \rightarrow \text{T}$

$4 \times 10 = \square \rightarrow \text{N}$

$1 \times 1 = \square \rightarrow \text{O}$

$2 \times 10 = \square \rightarrow \text{S}$

$10 \times 7 = \square \rightarrow \text{F}$

$9 \times 6 = \square \rightarrow \text{H}$

$2 \times 7 = \square \rightarrow \text{W}$

$5 \times 2 = \square \rightarrow \text{D}$

$11 \times 6 = \square \rightarrow \text{P}$

$12 \times 10 = \square \rightarrow \text{R}$

$1 \times 5 = \square \rightarrow \text{E}$

$7 \times 6 = \square \rightarrow \text{I}$

$4 \times 8 = \square \rightarrow \text{A}$

$3 \times 3 = \square \rightarrow \text{B}$

$3 \times 12 = \square \rightarrow \text{M}$

$11 \times 7 = \square \rightarrow \text{Y}$

Scratch space:

CLUE 4

Fractions of a number

The herd divided their daily glitter oats into exact fractional portions. Calculate each fraction to gather more evidence.

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

T																		
26	23	30	30	25	9	7	30	24	10	30	9	24	10	6	15	7	30	37
37	9	6	25	30	13	17	35	24	30	23	35	9	13					

$2/6$ of 78 = → T	$5/10$ of 18 = → I	$2/6$ of 39 = → R
$1/8$ of 200 = → V	$4/8$ of 74 = → S	$5/10$ of 20 = → C
$1/3$ of 105 = → A	$2/6$ of 45 = → U	$1/8$ of 56 = → D
$1/6$ of 138 = → H	$3/10$ of 20 = → L	$6/10$ of 50 = → E
$1/5$ of 85 = → M	$1/5$ of 120 = → N	

Scratch space:

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

The potion scale needs a balanced sum to unlock the final vault door. Find the missing amounts to solve the mystery.

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:

$32 + \underline{\quad} = 42$

$39 + \underline{\quad} = 45$

$8 + \underline{\quad} = 15$

$29 + \underline{\quad} = 34$

$30 + \underline{\quad} = 41$

$23 + \underline{\quad} = 35$

$40 + \underline{\quad} = 48$

$28 + \underline{\quad} = 30$

$26 + \underline{\quad} = 35$

$22 + \underline{\quad} = 23$

$40 + \underline{\quad} = 43$

Step 2 - cross out the sentence with each answer:

1. The villain hums a soothing tune, then teleports through fog.
2. The villain creates glowing shields, then freezes grass with ice.
3. The villain floats on soft clouds, then dashes at super speed.
4. The villain creates glowing shields, then levitates heavy rocks.
5. The villain hums a soothing tune, then dashes at super speed.
6. The villain floats on soft clouds, then freezes grass with ice.
7. The villain creates glowing shields, then dashes at super speed.
8. The villain grows radiant gems, then teleports through fog.
9. The villain hums a soothing tune, then rewinds time briefly.
10. The villain hums a soothing tune, then freezes grass with ice.
11. The villain shatters crystal stones, then dashes at super speed.
12. The villain creates glowing shields, then rewinds time briefly.

Answer Key

The Case of the Missing Starlight Horn

Culprit: Lucian Luster

Starlight Shield · Levitation · Right Hoofprint · Silver Mane · Moon Berries

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Skip counting): "THE SUSPECT DOES NOT HAVE TIME REWIND"

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

Clue 2 (Rounding): "THE THIEF LEFT A CLEAR RIGHT HOOFPRIINT"

Round 2,902 to the nearest thousand = 3000 (T) · Round 4,285 to the nearest hundred = 4300 (C) · Round 1,326 to the nearest hundred = 1300 (A) · Round 21 to the nearest ten = 20 (L) · Round 188 to the nearest hundred = 200 (F) · Round 3,719 to the nearest hundred = 3700 (I) · Round 670 to the nearest hundred = 700 (G) · Round 527 to the nearest hundred = 500 (O) · Round 89 to the nearest ten = 90 (E) · Round 232 to the nearest ten = 230 (H) · Round 108 to the nearest ten = 110 (R) · Round 374 to the nearest ten = 370 (P) · Round 2,891 to the nearest hundred = 2900 (N)

Clue 3 (Multiplication facts (1-12)): "THE THIEF WAS STOPPED BY MOON BERRIES"

$9 \times 10 = 90$ (T) · $4 \times 10 = 40$ (N) · $1 \times 1 = 1$ (O) · $2 \times 10 = 20$ (S) · $10 \times 7 = 70$ (F) · $9 \times 6 = 54$ (H) · $2 \times 7 = 14$ (W) · $5 \times 2 = 10$ (D) · $11 \times 6 = 66$ (P) · $12 \times 10 = 120$ (R) · $1 \times 5 = 5$ (E) · $7 \times 6 = 42$ (I) · $4 \times 8 = 32$ (A) · $3 \times 3 = 9$ (B) · $3 \times 12 = 36$ (M) · $11 \times 7 = 77$ (Y)

Clue 4 (Fractions of a number): "THE EVIDENCE INCLUDES SILVER MANE HAIR"

$\frac{2}{6}$ of 78 = 26 (T) · $\frac{5}{10}$ of 18 = 9 (I) · $\frac{2}{6}$ of 39 = 13 (R) · $\frac{1}{8}$ of 200 = 25 (V) · $\frac{4}{8}$ of 74 = 37 (S) · $\frac{5}{10}$ of 20 = 10 (C) · $\frac{1}{3}$ of 105 = 35 (A) · $\frac{2}{6}$ of 45 = 15 (U) · $\frac{1}{8}$ of 56 = 7 (D) · $\frac{1}{6}$ of 138 = 23 (H) · $\frac{3}{10}$ of 20 = 6 (L) · $\frac{6}{10}$ of 50 = 30 (E) · $\frac{1}{5}$ of 85 = 17 (M) · $\frac{1}{5}$ of 120 = 24 (N)

Clue 5 (Missing addends): surviving statement is box 4 → Lucian Luster

$32 + \underline{\quad} = 42 = 10$ · $39 + \underline{\quad} = 45 = 6$ · $8 + \underline{\quad} = 15 = 7$ · $29 + \underline{\quad} = 34 = 5$ · $30 + \underline{\quad} = 41 = 11$ · $23 + \underline{\quad} = 35 = 12$ · $40 + \underline{\quad} = 48 = 8$ · $28 + \underline{\quad} = 30 = 2$ · $26 + \underline{\quad} = 35 = 9$ · $22 + \underline{\quad} = 23 = 1$ · $40 + \underline{\quad} = 43 = 3$