The Case of the Missing Rainbow Horn

Grade 6 math · Addition, Multiplication, Percentages, Exponents, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone snuck into the Starlight Temple and snatched the Sacred Prism Horn. The culprit left magical clues across the cloud meadow. Use your deduction skills to unmask the rogue 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 horn thief is _____

Possible suspects

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

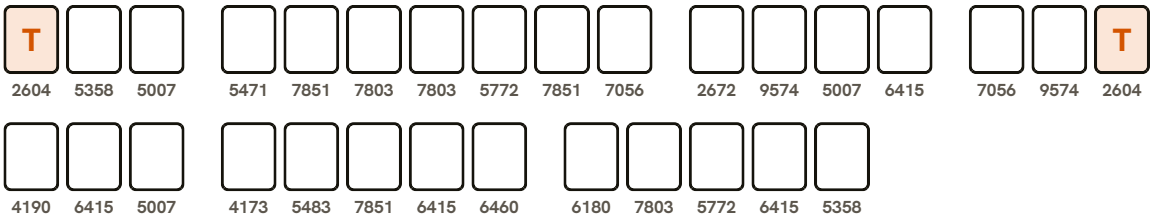
NAME	MAGIC SPECIALTY	AURA CHARM	DOMINANT HOOF	MANE STYLE	FAVORITE SNACK
Glimmer	Cloud Sculpting	Sparkle Shield	Right Hoofed	Golden Ringlets	Sugar Apples
Solstice	Moon Beaming	Sparkle Shield	Left Hoofed	Golden Ringlets	Moonberry Pies
Barnaby	Rainbow Weaving	Prism Flash	Right Hoofed	Golden Ringlets	Sugar Apples
Sparkle	Moon Beaming	Sparkle Shield	Right Hoofed	Silver Braids	Sugar Apples
Sunbeam	Crystal Humming	Cosmic Breeze	Right Hoofed	Silver Braids	Sugar Apples
Skye	Rainbow Weaving	Glitter Glow	Right Hoofed	Silver Braids	Honey Oat Bites
Bramble	Cloud Sculpting	Prism Flash	Left Hoofed	Golden Ringlets	Sugar Apples
Coronet	Moon Beaming	Glitter Glow	Left Hoofed	Neon Spikes	Moonberry Pies
Whisper	Rainbow Weaving	Sparkle Shield	Right Hoofed	Golden Ringlets	Sugar Apples
Pippin	Crystal Humming	Prism Flash	Right Hoofed	Silver Braids	Sugar Apples
Sterling	Rainbow Weaving	Prism Flash	Left Hoofed	Silver Braids	Sugar Apples
Vesper	Star Blasting	Glitter Glow	Left Hoofed	Silver Braids	Sugar Apples
Nova	Moon Beaming	Sparkle Shield	Left Hoofed	Silver Braids	Honey Oat Bites
Dawnburst	Cloud Sculpting	Cosmic Breeze	Right Hoofed	Golden Ringlets	Moonberry Pies
Starling	Star Blasting	Sparkle Shield	Left Hoofed	Golden Ringlets	Honey Oat Bites
Celestia	Cloud Sculpting	Cosmic Breeze	Right Hoofed	Silver Braids	Sugar Apples
Radiance	Moon Beaming	Starlight Ring	Left Hoofed	Silver Braids	Sugar Apples
Astral	Cloud Sculpting	Glitter Glow	Right Hoofed	Silver Braids	Sugar Apples
Orion	Rainbow Weaving	Cosmic Breeze	Right Hoofed	Golden Ringlets	Honey Oat Bites
Sundance	Star Blasting	Starlight Ring	Right Hoofed	Golden Ringlets	Moonberry Pies
Luna	Moon Beaming	Cosmic Breeze	Right Hoofed	Neon Spikes	Honey Oat Bites

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CLUE 1 Addition

> Detective Starling tallied the total number of glowing crystals gathered from three different meadow shrines to open the encrypted scroll.

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



908 + 1696 = ☐ → T

4357 + 3494 = ☐ → I

2175 + 3183 = ☐ → H

1729 + 3278 = ☐ → E

1252 + 1420 = ☐ → D

3393 + 2078 = ☐ → V

1645 + 2545 = ☐ → U

4433 + 2623 = ☐ → N

5411 + 4163 = ☐ → O

2149 + 4311 = ☐ → M

3670 + 1813 = ☐ → R

2184 + 3996 = ☐ → F

2791 + 2981 = ☐ → A

2778 + 1395 = ☐ → P

2956 + 3459 = ☐ → S

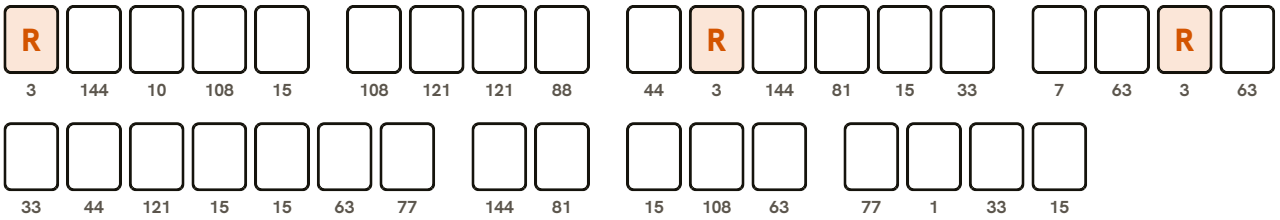
3287 + 4516 = ☐ → L

Scratch space:

CLUE 2 Multiplication facts (1-12)

> The team inspected grid arrays of cloud tiles near the vault, calculating the total area to find the hidden lock mechanism.

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



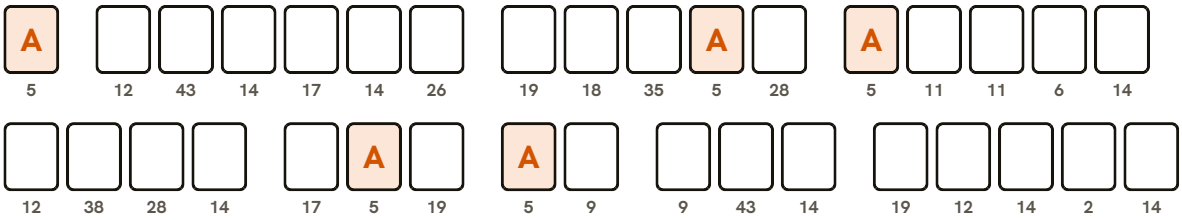
3 × 1 = ☐ → R	1 × 7 = ☐ → W	11 × 11 = ☐ → O
7 × 9 = ☐ → E	11 × 7 = ☐ → D	1 × 1 = ☐ → U
4 × 11 = ☐ → P	9 × 9 = ☐ → N	3 × 5 = ☐ → T
8 × 11 = ☐ → F	3 × 11 = ☐ → S	12 × 12 = ☐ → I
9 × 12 = ☐ → H	2 × 5 = ☐ → G	

Scratch space:

CLUE 3 Percentages

> A magical purity meter displayed what percentage of star essence remained in the temple reservoir after the break-in.

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



10% of 50 = ☐ → A

5% of 180 = ☐ → T

50% of 22 = ☐ → P

50% of 76 = ☐ → O

20% of 95 = ☐ → S

25% of 172 = ☐ → H

25% of 8 = ☐ → N

40% of 35 = ☐ → E

10% of 170 = ☐ → W

25% of 112 = ☐ → R

60% of 20 = ☐ → C

50% of 70 = ☐ → G

50% of 52 = ☐ → D

5% of 120 = ☐ → L

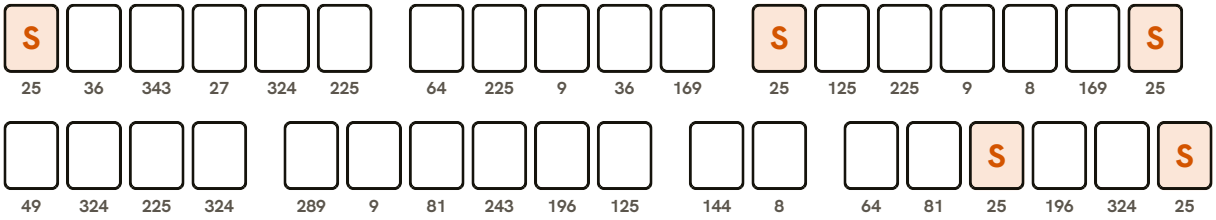
60% of 30 = ☐ → U

Scratch space:

CLUE 4 Exponents

> The thief left an escalating spell pattern that doubled in strength with each step taken across the cloud bridge.

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



5^2 = ☐ → S	6^2 = ☐ → I	15^2 = ☐ → R	9^2 = ☐ → U
3^2 = ☐ → A	3^5 = ☐ → G	7^2 = ☐ → W	14^2 = ☐ → H
13^2 = ☐ → D	4^3 = ☐ → B	18^2 = ☐ → E	3^3 = ☐ → V
12^2 = ☐ → O	7^3 = ☐ → L	2^3 = ☐ → N	5^3 = ☐ → T
17^2 = ☐ → C			

Scratch space:

CLUE 5 Division facts (1-12) - the last clue

> The guard divided a bag of enchanted sugar cubes equally among five stable patrols to gather witness reports.

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:

66 ÷ 11 = ☐ | 4 ÷ 4 = ☐ | 77 ÷ 7 = ☐ | 56 ÷ 8 = ☐ | 9 ÷ 1 = ☐

15 ÷ 5 = ☐ | 40 ÷ 5 = ☐ | 55 ÷ 11 = ☐ | 12 ÷ 1 = ☐ | 10 ÷ 1 = ☐

8 ÷ 4 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain focused moon beams, then activated sparkle shield.
2. The villain sculpted cloud walls, then flashed prism light.
3. The villain blasted star bursts, then blew cosmic breeze.
4. The villain sculpted cloud walls, then shattered glitter glow.
5. The villain blasted star bursts, then summoned starlight rings.
6. The villain sculpted cloud walls, then blew cosmic breeze.
7. The villain wove rainbow threads, then flashed prism light.
8. The villain focused moon beams, then flashed prism light.
9. The villain focused moon beams, then shattered glitter glow.
10. The villain hummed crystal notes, then shattered glitter glow.
11. The villain hummed crystal notes, then blew cosmic breeze.
12. The villain focused moon beams, then summoned starlight rings.

TEACHER / PARENT

Answer Key

The Case of the Missing Rainbow Horn

Culprit: Astral

Cloud Sculpting · Glitter Glow · Right Hoofed · Silver Braids · Sugar Apples

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT USE PRISM FLASH"

908 + 1696 = 2604 (T) · 4357 + 3494 = 7851 (I) · 2175 + 3183 = 5358 (H) · 1729 + 3278 = 5007 (E) · 1252 + 1420 = 2672 (D) · 3393 + 2078 = 5471 (V) · 1645 + 2545 = 4190 (U) · 4433 + 2623 = 7056 (N) · 5411 + 4163 = 9574 (O) · 2149 + 4311 = 6460 (M) · 3670 + 1813 = 5483 (R) · 2184 + 3996 = 6180 (F) · 2791 + 2981 = 5772 (A) · 2778 + 1395 = 4173 (P) · 2956 + 3459 = 6415 (S) · 3287 + 4516 = 7803 (L)

Clue 2 (Multiplication facts (1-12)): "RIGHT HOOF PRINTS WERE SPOTTED IN THE DUST"

3 × 1 = 3 (R) · 1 × 7 = 7 (W) · 11 × 11 = 121 (O) · 7 × 9 = 63 (E) · 11 × 7 = 77 (D) · 1 × 1 = 1 (U) · 4 × 11 = 44 (P) · 9 × 9 = 81 (N) · 3 × 5 = 15 (T) · 8 × 11 = 88 (F) · 3 × 11 = 33 (S) · 12 × 12 = 144 (I) · 9 × 12 = 108 (H) · 2 × 5 = 10 (G)

Clue 3 (Percentages): "A CHEWED SUGAR APPLE CORE WAS AT THE SCENE"

10% of 50 = 5 (A) · 5% of 180 = 9 (T) · 50% of 22 = 11 (P) · 50% of 76 = 38 (O) · 20% of 95 = 19 (S) · 25% of 172 = 43 (H) · 25% of 8 = 2 (N) · 40% of 35 = 14 (E) · 10% of 170 = 17 (W) · 25% of 112 = 28 (R) · 60% of 20 = 12 (C) · 50% of 70 = 35 (G) · 50% of 52 = 26 (D) · 5% of 120 = 6 (L) · 60% of 30 = 18 (U)

Clue 4 (Exponents): "SILVER BRAID STRANDS WERE CAUGHT ON BUSHES"

5^2 = 25 (S) · 6^2 = 36 (I) · 15^2 = 225 (R) · 9^2 = 81 (U) · 3^2 = 9 (A) · 3^5 = 243 (G) · 7^2 = 49 (W) · 14^2 = 196 (H) · 13^2 = 169 (D) · 4^3 = 64 (B) · 18^2 = 324 (E) · 3^3 = 27 (V) · 12^2 = 144 (O) · 7^3 = 343 (L) · 2^3 = 8 (N) · 5^3 = 125 (T) · 17^2 = 289 (C)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Astral

66 ÷ 11 = 6 · 4 ÷ 4 = 1 · 77 ÷ 7 = 11 · 56 ÷ 8 = 7 · 9 ÷ 1 = 9 · 15 ÷ 5 = 3 · 40 ÷ 5 = 8 · 55 ÷ 11 = 5 · 12 ÷ 1 = 12 · 10 ÷ 1 = 10 · 8 ÷ 4 = 2