



The Theft of the Golden Blossom

Grade 5 math · Multiplication, Subtraction, Fractions of a number, Multi-step word problems, Division · Reading level grades 5-6

Detective: _____ Date: _____

The Golden Blossom, the magical flower that keeps the Prism Waterfall flowing, has been snatched from its glass dome in the Shimmering Meadows! The Grand Council of Unicorns suspects one of their own has gone rogue. Detective, we must analyze the magical residue left behind and track down the culprit before the waterfall dries up forever!

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 Rogue Unicorn is _____

Possible suspects

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

NAME	PRIMARY MAGIC	SECONDARY MAGIC	SPARKLE RESIDUE	MANE COLOR	SENSES WEAKNESS
Onyx	sparkle teleportation	starlight charging	star shape sparkle	pastel pink mane	whistling wind chimes
Sapphire	crystal conjuring	floral blooming	star shape sparkle	pastel pink mane	sweet clover treats
Stormbringer	dream whispering	hoofprint levitation	heart shape sparkle	pastel pink mane	sweet clover treats
Obsidian	rainbow shielding	starlight charging	star shape sparkle	electric blue mane	sweet clover treats
Starweaver	crystal conjuring	starlight charging	star shape sparkle	pastel pink mane	whistling wind chimes
Glitterhoof	rainbow shielding	aurora bending	star shape sparkle	lavender silver mane	shiny pyrite rocks
Moonbeam	sparkle teleportation	hoofprint levitation	star shape sparkle	pastel pink mane	sweet clover treats
Eclipse	rainbow shielding	floral blooming	heart shape sparkle	lavender silver mane	shiny pyrite rocks
Buttercup	dream whispering	sonic whinnying	heart shape sparkle	electric blue mane	sweet clover treats
Twinkle	cloud sculpting	aurora bending	heart shape sparkle	pastel pink mane	shiny pyrite rocks
Celestia	rainbow shielding	aurora bending	star shape sparkle	pastel pink mane	whistling wind chimes
Bramble	crystal conjuring	starlight charging	heart shape sparkle	lavender silver mane	whistling wind chimes
Amber	sparkle teleportation	sonic whinnying	star shape sparkle	lavender silver mane	shiny pyrite rocks
Sunfire	crystal conjuring	aurora bending	star shape sparkle	pastel pink mane	sweet clover treats
Skydancer	cloud sculpting	starlight charging	star shape sparkle	lavender silver mane	shiny pyrite rocks
Aurora	dream whispering	hoofprint levitation	star shape sparkle	pastel pink mane	whistling wind chimes
Opal	sparkle teleportation	sonic whinnying	star shape sparkle	pastel pink mane	sweet clover treats
Stardust	dream whispering	floral blooming	star shape sparkle	electric blue mane	sweet clover treats
Prism	sparkle teleportation	sonic whinnying	star shape sparkle	pastel pink mane	whistling wind chimes
Zephyr	crystal conjuring	sonic whinnying	star shape sparkle	pastel pink mane	sweet clover treats
Nova	cloud sculpting	starlight charging	heart shape sparkle	electric blue mane	shiny pyrite rocks

CLUE 1

Multiplication facts (1-12)

To decode the magical spell lock on the Golden Blossom's empty dome, we counted the rows of glowing runes. Each of the rune panels has several rows, and multiplying them reveals a secret about the villain's extra power.

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

T																T
28	11	6	25	66	81	81	70	66	45	64	132	6	99	45	132	28
88	99	6	70	88	33	132	33	70	22	6	45	64	66	45	77	

$7 \times 4 = \square \rightarrow \boxed{\text{T}}$

$3 \times 2 = \square \rightarrow \boxed{\text{E}}$

$8 \times 8 = \square \rightarrow \boxed{\text{D}}$

$5 \times 5 = \square \rightarrow \boxed{\text{V}}$

$11 \times 7 = \square \rightarrow \boxed{\text{G}}$

$9 \times 9 = \square \rightarrow \boxed{\text{L}}$

$10 \times 7 = \square \rightarrow \boxed{\text{A}}$

$3 \times 11 = \square \rightarrow \boxed{\text{R}}$

$11 \times 6 = \square \rightarrow \boxed{\text{I}}$

$9 \times 5 = \square \rightarrow \boxed{\text{N}}$

$8 \times 11 = \square \rightarrow \boxed{\text{U}}$

$11 \times 9 = \square \rightarrow \boxed{\text{S}}$

$12 \times 11 = \square \rightarrow \boxed{\text{O}}$

$1 \times 11 = \square \rightarrow \boxed{\text{H}}$

$2 \times 11 = \square \rightarrow \boxed{\text{B}}$

Scratch space:

CLUE 2

Subtraction

The rogue unicorn left a trail of heavy steps. We calculated how much magical energy was lost from the meadow's reserve by subtracting the remaining energy from the starting total, which exposed their special sparkle tell.

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

The diagram illustrates the distribution of 128 nodes across 128 slots in a 4x128 grid. The nodes are represented by squares, some of which are orange and labeled 'T'.

Row 1 (Top): 12 slots. Slots 1, 10, and 11 are orange and labeled 'T'. The values below the slots are: 5461, 5285, 2408, 5564, 5281, 2408, 1173, 2408, 5285, 2853, 5564, 5564, 5461, 2853, 2308.

Row 2: 12 slots. Slots 10 and 11 are orange and labeled 'T'. The values below the slots are: 5564, 5285, 2853, 5459, 2408, 7010, 6572, 8566, 2185, 5461, 5461, 2408, 2308.

Row 3 (Bottom): 8 slots. The values below the slots are: 5564, 5459, 2853, 2308, 5823, 8566, 2408, 5564.

$$7444 - 1983 = \boxed{} \rightarrow \mathbf{T}$$

$$3953 - 1100 = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

$$9449 - 3990 = \boxed{} \rightarrow \boxed{\text{P}}$$

$3546 - 1138 = \boxed{} \rightarrow \mathbf{E}$

$$11213 - 4641 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$2740 - 432 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$8050 - 1040 = \boxed{} \rightarrow \boxed{\mathbf{D}}$$

$$9041 - 3477 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$8119 - 2296 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$7407 - 2122 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$7840 - 2559 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$13033 - 4467 = \boxed{} \rightarrow \boxed{\text{L}}$$

$3769 - 1584 = \boxed{} \rightarrow \boxed{}$

$$5793 - 4620 = \boxed{} \rightarrow \boxed{\text{N}}$$

Scratch space:

CLUE 3

Fractions of a number

We discovered a discarded pouch of glowing crystal dust near the waterfall. By calculating what fraction of the magic crystals remained inside, we uncovered the exact color of the culprit's mane.

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

Diagram illustrating a 2D array structure with 2 rows and 15 columns. The array contains values (orange boxes) and empty cells (white boxes).

Row 1 values: 38, 21, 10, 10, 34, 13, 3, 8, 30, 10, 40, 34, 40, 10, 20, 34, 38.

Row 2 values: 21, 16, 3, 3, 14, 16, 38, 34, 40, 20, 13, 34, 34, 31, 10, 38, 29, 10, 20, 4.

$$\frac{1}{2} \text{ of } 76 = \boxed{} \rightarrow \boxed{\text{S}}$$

$3/6$ of $20 = \boxed{} \rightarrow \boxed{\text{E}}$

5/10 of 8 = → **K**

$3/6$ of 6 = $\rightarrow$ **L**

$$2/10 \text{ of } 145 = \boxed{} \rightarrow \boxed{\text{N}}$$

$\frac{1}{3}$ of 42 = $\rightarrow$ **D**

$1/5$ of 65 = $\rightarrow$ **C**

$7/8$ of 24 = $\rightarrow$ **W**

$3/8$ of 80 = $\rightarrow$ **V**

$5/6$ of 24 = $\rightarrow$ **A**

2/4 of 68 = → **T**

$\frac{1}{5}$ of 155 = $\rightarrow$ **H**

$2/10$ of 40 = $\rightarrow$

$$\frac{1}{3} \text{ of } 120 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$2/5 \text{ of } 40 = \boxed{} \rightarrow \boxed{\text{I}}$$

Scratch space:

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

The herd wants to share the remaining starry apples equally. Splitting the harvest into equal groups points us directly to the direction the thief fled to help us confirm their final trait.

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:

$81 \div 9 = \boxed{}$

$90 \div 9 = \boxed{}$

$10 \div 2 = \boxed{}$

$21 \div 7 = \boxed{}$

$49 \div 7 = \boxed{}$

$7 \div 7 = \boxed{}$

$96 \div 8 = \boxed{}$

$18 \div 3 = \boxed{}$

$64 \div 8 = \boxed{}$

$24 \div 6 = \boxed{}$

$88 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sculpts a heavy storm cloud, then charges the air with pure starlight.
2. The villain conjures sharp purple crystals, then causes wild floral blooms to grow.
3. The villain conjures sharp purple crystals, then bends the bright northern aurora.
4. The villain teleports with bright sparkles, then charges the air with pure starlight.
5. The villain teleports with bright sparkles, then blasts a loud sonic whinny.
6. The villain conjures sharp purple crystals, then charges the air with pure starlight.
7. The villain sculpts a heavy storm cloud, then blasts a loud sonic whinny.
8. The villain sculpts a heavy storm cloud, then hovers off the ground with levitation.
9. The villain conjures sharp purple crystals, then blasts a loud sonic whinny.
10. The villain teleports with bright sparkles, then hovers off the ground with levitation.
11. The villain teleports with bright sparkles, then causes wild floral blooms to grow.
12. The villain creates a glowing rainbow shield, then bends the bright northern aurora.

Answer Key

The Theft of the Golden Blossom

Culprit: Sapphire

crystal conjuring · floral blooming · star shape sparkle · pastel pink mane · sweet clover treats

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT USE AURORA BENDING"

$7 \times 4 = 28$ (T) · $3 \times 2 = 6$ (E) · $8 \times 8 = 64$ (D) · $5 \times 5 = 25$ (V) · $11 \times 7 = 77$ (G) · $9 \times 9 = 81$ (L) · $10 \times 7 = 70$ (A) · $3 \times 11 = 33$ (R) · $11 \times 6 = 66$ (I) · $9 \times 5 = 45$ (N) · $8 \times 11 = 88$ (U) · $11 \times 9 = 99$ (S) · $12 \times 11 = 132$ (O) · $1 \times 11 = 11$ (H) · $2 \times 11 = 22$ (B)

Clue 2 (Subtraction): "THE SCENE HAS STAR SHAPED GLITTER SPARKLES"

$7444 - 1983 = 5461$ (T) · $3953 - 1100 = 2853$ (A) · $9449 - 3990 = 5459$ (P) · $3546 - 1138 = 2408$ (E) · $11213 - 4641 = 6572$ (G) · $2740 - 432 = 2308$ (R) · $8050 - 1040 = 7010$ (D) · $9041 - 3477 = 5564$ (S) · $8119 - 2296 = 5823$ (K) · $7407 - 2122 = 5285$ (H) · $7840 - 2559 = 5281$ (C) · $13033 - 4467 = 8566$ (L) · $3769 - 1584 = 2185$ (I) · $5793 - 4620 = 1173$ (N)

Clue 3 (Fractions of a number): "SWEET CLOVER TREATS WILL DISTRACT THE SNEAK"

$1/2$ of 76 = 38 (S) · $3/6$ of 20 = 10 (E) · $5/10$ of 8 = 4 (K) · $3/6$ of 6 = 3 (L) · $2/10$ of 145 = 29 (N) · $1/3$ of 42 = 14 (D) · $1/5$ of 65 = 13 (C) · $7/8$ of 24 = 21 (W) · $3/8$ of 80 = 30 (V) · $5/6$ of 24 = 20 (A) · $2/4$ of 68 = 34 (T) · $1/5$ of 155 = 31 (H) · $2/10$ of 40 = 8 (O) · $1/3$ of 120 = 40 (R) · $2/5$ of 40 = 16 (I)

Clue 4 (Multi-step word problems): "PASTEL PINK MANE"

Stable sprite collected 42 shimmer apple in the morning and 12 shimmer apple in the afternoon, then split them equally among 3 Glitter Patrol. How many shimmer apple did each get? = 18 (P) · There were 480 glitter crystal in all. 2 Glitter Patrol used 15 glitter crystal each. The other 5 Glitter Patrol shared the rest equally. How many glitter crystal did each of the other Glitter Patrol get? = 90 (I) · There were 94 rainbow berry in all. 22 rainbow berry were set aside. The rest were shared equally among 9 Glitter Patrol. How many rainbow berry did each get? = 8 (L) · There were 230 clover bundle in all. 4 Glitter Patrol used 20 clover bundle each. The other 5 Glitter Patrol shared the rest equally. How many clover bundle did each of the other Glitter Patrol get? = 30 (S) · Stable sprite earned 8 dew drop in each of 4 rounds, plus 8 bonus dew drop. Then 7 dew drop were lost. How many dew drop are left? = 33 (E) · Stable sprite earned 2 rainbow berry in each of 2 rounds, plus 15 bonus rainbow berry. Then 7 rainbow berry were lost. How many rainbow berry are left? = 12 (T) · Stable sprite collected 21 dew drop in the morning and 54 dew drop in the afternoon, then split them equally among 3 Glitter Patrol. How many dew drop did each get? = 25 (A)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Sapphire

$81 \div 9 = 9$ · $90 \div 9 = 10$ · $10 \div 2 = 5$ · $21 \div 7 = 3$ · $49 \div 7 = 7$ · $7 \div 7 = 1$ · $96 \div 8 = 12$ · $18 \div 3 = 6$ · $64 \div 8 = 8$ · $24 \div 6 = 4$ · $88 \div 8 = 11$