



The Ember Egg Mystery

Grade 5 math · Place value, Addition, Subtraction, Rounding, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone has snuck into the Sunspire Nesting Grounds and swiped the golden Ember Egg! The Chief Nest Keeper needs our help to track down the thief. Every suspect is a fairy or a dragon-helper who has unique skills and gear. We must follow the clues left behind to save the baby dragon before it hatches!

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 Sprite is _____

Possible suspects

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

NAME	FAIRY MAGIC	DRAGON GEAR	CASTING HAND	WAND GLOW	SCENT ALLERGY
Periwinkle	Dew Dropping	Flame Shield	Right Handed	Emerald Beam	Pine Sap
Flora	Breeze Bending	Scale Boots	Right Handed	Emerald Beam	Pine Sap
Titania	Fern Whispering	Flame Shield	Right Handed	Amber Sparkle	Daisy Pollen
Puck	Glow Sparking	Scale Boots	Right Handed	Emerald Beam	Daisy Pollen
Vidia	Leaf Weaving	Tail Armor	Right Handed	Emerald Beam	Clover Nectar
Oberon	Leaf Weaving	Claw Hooks	Right Handed	Emerald Beam	Pine Sap
Iridessa	Dew Dropping	Scale Boots	Left Handed	Sapphire Shimmer	Clover Nectar
Bobble	Leaf Weaving	Scale Boots	Right Handed	Sapphire Shimmer	Pine Sap
Clank	Glow Sparking	Smoke Goggles	Right Handed	Emerald Beam	Pine Sap
Ariel	Fern Whispering	Flame Shield	Left Handed	Emerald Beam	Pine Sap
Bluebell	Leaf Weaving	Scale Boots	Right Handed	Sapphire Shimmer	Daisy Pollen
Fawn	Fern Whispering	Flame Shield	Right Handed	Emerald Beam	Pine Sap
Fauna	Glow Sparking	Tail Armor	Left Handed	Emerald Beam	Pine Sap
Pip	Fern Whispering	Smoke Goggles	Right Handed	Sapphire Shimmer	Clover Nectar
Dewdrop	Leaf Weaving	Scale Boots	Right Handed	Amber Sparkle	Clover Nectar
Terence	Leaf Weaving	Smoke Goggles	Right Handed	Amber Sparkle	Pine Sap
Silvermist	Glow Sparking	Scale Boots	Left Handed	Sapphire Shimmer	Clover Nectar
Spike	Fern Whispering	Flame Shield	Right Handed	Sapphire Shimmer	Pine Sap
Rosetta	Dew Dropping	Flame Shield	Right Handed	Sapphire Shimmer	Clover Nectar
Tinker Bell	Leaf Weaving	Tail Armor	Right Handed	Amber Sparkle	Clover Nectar
Gliss	Glow Sparking	Flame Shield	Right Handed	Amber Sparkle	Clover Nectar

CLUE 1 Place value

To unlock the dragon nest vault, you must read the digit values on the glowing runic keyboard.

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

T			T											T			
600	60	90	600	60	2000	90	700	100	500	90	8000	4000	500	600	7000	8000	90

30	80	400	70	60	500	500	1000	8000

What is the value of the 6 in 48,609?

→ T

What is the value of the 6 in 87,968?

→ H

What is the value of the 1 in 20,127?

→ D

What is the value of the 5 in 730,540?

→ O

What is the value of the 7 in 96,179?

→ W

What is the value of the 9 in 52,494?

→ E

What is the value of the 7 in 27,144?

→ U

What is the value of the 4 in 84,271?

→ N

What is the value of the 3 in 91,638?

→ C

What is the value of the 1 in 771,382?

→ K

What is the value of the 8 in 67,586?

→ L

What is the value of the 4 in 36,429?

→ A

What is the value of the 8 in 458,251?

→ S

What is the value of the 2 in 712,517?

→ I

What is the value of the 7 in 16,765?

→ F

Scratch space:

CLUE 2 Addition

We gather the dropped glowing crystals from the pathway, adding them together to track the thief's escape route.

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

T 8353	9058	6869	5118	8390	5118	7575	6869	6464	T 8353	6464	8727	5118	T 8353	5118	7872	9421	T 8353	9058
T 8353	9058	6869	4697	9421	5075	9058	T 8353	9058	8727	2176	5327							

$4604 + 3749 = \square \rightarrow \boxed{\text{T}}$	$1759 + 3316 = \square \rightarrow \boxed{\text{G}}$	$5222 + 3505 = \square \rightarrow \boxed{\text{A}}$
$3472 + 4400 = \square \rightarrow \boxed{\text{W}}$	$4551 + 3839 = \square \rightarrow \boxed{\text{U}}$	$1804 + 3523 = \square \rightarrow \boxed{\text{D}}$
$3781 + 3088 = \square \rightarrow \boxed{\text{E}}$	$3247 + 1450 = \square \rightarrow \boxed{\text{R}}$	$3722 + 5336 = \square \rightarrow \boxed{\text{H}}$
$3767 + 3808 = \square \rightarrow \boxed{\text{P}}$	$2456 + 2662 = \square \rightarrow \boxed{\text{S}}$	$2764 + 3700 = \square \rightarrow \boxed{\text{C}}$
$2836 + 6585 = \square \rightarrow \boxed{\text{I}}$	$1220 + 956 = \square \rightarrow \boxed{\text{N}}$	

Scratch space:

CLUE 3

Subtraction

The thief took some fairy dust from our supply jar, and we must subtract what remains to find out how much they used.

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

T			T											
4199	6695	8798	4199	6695	8468	8798	5257	6695	6478	2552	6478	6517		
							T							
6478	2956	2956	8798	3385	4755	1079	4199	2848	6857	8468	6517	8798	1158	6478

$4355 - 156 = \square \rightarrow \text{[T]}$

$13587 - 4789 = \square \rightarrow \text{[E]}$

$2680 - 1601 = \square \rightarrow \text{[Y]}$

$10626 - 4109 = \square \rightarrow \text{[N]}$

$9728 - 3250 = \square \rightarrow \text{[A]}$

$6541 - 3693 = \square \rightarrow \text{[O]}$

$2956 - 404 = \square \rightarrow \text{[D]}$

$5011 - 2055 = \square \rightarrow \text{[L]}$

$4105 - 720 = \square \rightarrow \text{[R]}$

$6787 - 2032 = \square \rightarrow \text{[G]}$

$3393 - 2235 = \square \rightarrow \text{[S]}$

$8060 - 1203 = \square \rightarrow \text{[P]}$

$10199 - 1731 = \square \rightarrow \text{[I]}$

$6845 - 150 = \square \rightarrow \text{[H]}$

$6356 - 1099 = \square \rightarrow \text{[F]}$

Scratch space:

CLUE 4
Rounding

The ancient stone scale is slightly broken and only registers weights rounded to the nearest ten ounces.

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

A						A					A						
300	7000	2000	2300	2000	3000	300	1700	110	50	2000	300	2300	3700	1700	9000	30	

	A												
30	300	430	1700	2000	1300	20	50	2000	700	70	7000	110	

Round 302 to the nearest hundred → **A**

Round 49 to the nearest ten → **B**

Round 662 to the nearest hundred → **H**

Round 113 to the nearest ten → **D**

Round 73 to the nearest ten → **I**

Round 1,311 to the nearest hundred → **F**

Round 2,040 to the nearest thousand → **E**

Round 433 to the nearest ten → **S**

Round 1,653 to the nearest hundred → **L**

Round 8,827 to the nearest thousand → **O**

Round 7,307 to the nearest thousand → **N**

Round 3,498 to the nearest thousand → **R**

Round 3,713 to the nearest hundred → **G**

Round 23 to the nearest ten → **T**

Round 2,309 to the nearest hundred → **M**

Round 32 to the nearest ten → **W**

Scratch space:

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

To distract the forest guards, we share our sweet sunberries equally among the hungry baby dragons.

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:

$63 \div 9 = \boxed{}$

$90 \div 9 = \boxed{}$

$6 \div 3 = \boxed{}$

$30 \div 10 = \boxed{}$

$1 \div 1 = \boxed{}$

$99 \div 9 = \boxed{}$

$15 \div 3 = \boxed{}$

$36 \div 3 = \boxed{}$

$108 \div 12 = \boxed{}$

$42 \div 7 = \boxed{}$

$72 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sprays hot glowing sparks, then blocks a falling tree trunk with tail armor.
2. The villain whispers to the jungle ferns, then deflects the guard beams with a flame shield.
3. The villain knits a thick barrier of leaves, then peers through the thick mist with smoke goggles.
4. The villain drops heavy splashes of cold dew, then deflects the guard beams with a flame shield.
5. The villain drops heavy splashes of cold dew, then swings up to the high branches with claw hooks.
6. The villain knits a thick barrier of leaves, then blocks a falling tree trunk with tail armor.
7. The villain sprays hot glowing sparks, then peers through the thick mist with smoke goggles.
8. The villain whispers to the jungle ferns, then stomps over hot embers using scale boots.
9. The villain sprays hot glowing sparks, then stomps over hot embers using scale boots.
10. The villain summons a sudden swirling breeze, then stomps over hot embers using scale boots.
11. The villain sprays hot glowing sparks, then deflects the guard beams with a flame shield.
12. The villain drops heavy splashes of cold dew, then stomps over hot embers using scale boots.

Answer Key

The Ember Egg Mystery

Culprit: Periwinkle

Dew Dropping · Flame Shield · Right Handed · Emerald Beam · Pine Sap

Trail: Start 21 → Clue 1 20 → Clue 2 16 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE THIEF DOES NOT USE CLAW HOOKS"

What is the value of the 6 in 48,609? = 600 (T) · What is the value of the 6 in 87,968? = 60 (H) · What is the value of the 1 in 20,127? = 100 (D) · What is the value of the 5 in 730,540? = 500 (O) · What is the value of the 7 in 96,179? = 70 (W) · What is the value of the 9 in 52,494? = 90 (E) · What is the value of the 7 in 27,144? = 7000 (U) · What is the value of the 4 in 84,271? = 4000 (N) · What is the value of the 3 in 91,638? = 30 (C) · What is the value of the 1 in 771,382? = 1000 (K) · What is the value of the 8 in 67,586? = 80 (L) · What is the value of the 4 in 36,429? = 400 (A) · What is the value of the 8 in 458,251? = 8000 (S) · What is the value of the 2 in 712,517? = 2000 (I) · What is the value of the 7 in 16,765? = 700 (F)

Clue 2 (Addition): "THE SUSPECT CASTS WITH THE RIGHT HAND"

4604 + 3749 = 8353 (T) · 1759 + 3316 = 5075 (G) · 5222 + 3505 = 8727 (A) · 3472 + 4400 = 7872 (W) · 4551 + 3839 = 8390 (U) · 1804 + 3523 = 5327 (D) · 3781 + 3088 = 6869 (E) · 3247 + 1450 = 4697 (R) · 3722 + 5336 = 9058 (H) · 3767 + 3808 = 7575 (P) · 2456 + 2662 = 5118 (S) · 2764 + 3700 = 6464 (C) · 2836 + 6585 = 9421 (I) · 1220 + 956 = 2176 (N)

Clue 3 (Subtraction): "THE THIEF HAD AN ALLERGY TO PINE SAP"

4355 - 156 = 4199 (T) · 13587 - 4789 = 8798 (E) · 2680 - 1601 = 1079 (Y) · 10626 - 4109 = 6517 (N) · 9728 - 3250 = 6478 (A) · 6541 - 3693 = 2848 (O) · 2956 - 404 = 2552 (D) · 5011 - 2055 = 2956 (L) · 4105 - 720 = 3385 (R) · 6787 - 2032 = 4755 (G) · 3393 - 2235 = 1158 (S) · 8060 - 1203 = 6857 (P) · 10199 - 1731 = 8468 (I) · 6845 - 150 = 6695 (H) · 6356 - 1099 = 5257 (F)

Clue 4 (Rounding): "AN EMERALD BEAM GLOW WAS LEFT BEHIND"

Round 302 to the nearest hundred = 300 (A) · Round 49 to the nearest ten = 50 (B) · Round 662 to the nearest hundred = 700 (H) · Round 113 to the nearest ten = 110 (D) · Round 73 to the nearest ten = 70 (I) · Round 1,311 to the nearest hundred = 1300 (F) · Round 2,040 to the nearest thousand = 2000 (E) · Round 433 to the nearest ten = 430 (S) · Round 1,653 to the nearest hundred = 1700 (L) · Round 8,827 to the nearest thousand = 9000 (O) · Round 7,307 to the nearest thousand = 7000 (N) · Round 3,498 to the nearest thousand = 3000 (R) · Round 3,713 to the nearest hundred = 3700 (G) · Round 23 to the nearest ten = 20 (T) · Round 2,309 to the nearest hundred = 2300 (M) · Round 32 to the nearest ten = 30 (W)

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

63 ÷ 9 = 7 · 90 ÷ 9 = 10 · 6 ÷ 3 = 2 · 30 ÷ 10 = 3 · 1 ÷ 1 = 1 · 99 ÷ 9 = 11 · 15 ÷ 3 = 5 · 36 ÷ 3 = 12 · 108 ÷ 12 = 9 · 42 ÷ 7 = 6 · 72 ÷ 9 = 8