Mystery of the Stolen Star Crystal

Grade 3 math · Rounding, Word problems, Addition, Subtraction, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into Glitterwood Meadow and swiped the sacred Star Crystal! Use your detective skills and solve the clues to find out who did it.

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 Sparkle Thief is _____

Possible suspects

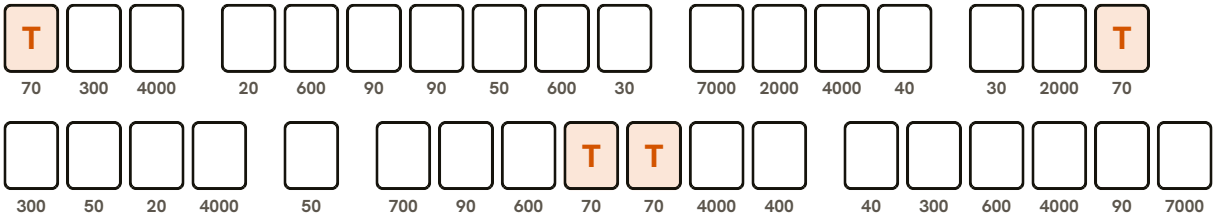
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	MAGICAL POWER	ENCHANTED ITEM	MANE STYLE	HORN COLOR	SOFT SPOT
Meadow	Starlight Blasts	Magic Ribbon	Braided Mane	Pink Horn	Sweet Apples
Nova	Starlight Blasts	Diamond Saddle	Flowing Mane	Pink Horn	Soft Music
Comet	Moon Teleport	Silver Bell	Braided Mane	Pink Horn	Soft Music
Starburst	Starlight Blasts	Glitter Shield	Flowing Mane	Pink Horn	Sweet Apples
Buttercup	Rainbow Beams	Glitter Shield	Flowing Mane	Silver Horn	Soft Music
Jewel	Starlight Blasts	Crystal Crown	Braided Mane	Gold Horn	Soft Music
Glimmer	Moon Teleport	Silver Bell	Braided Mane	Gold Horn	Sweet Apples
Sparkles	Flower Growth	Magic Ribbon	Flowing Mane	Gold Horn	Sweet Apples
Barnaby	Starlight Blasts	Silver Bell	Braided Mane	Silver Horn	Sweet Apples
Whispers	Starlight Blasts	Silver Bell	Flowing Mane	Silver Horn	Soft Music
Moonbeam	Flower Growth	Crystal Crown	Braided Mane	Silver Horn	Soft Music
Twilight	Cloud Hopping	Crystal Crown	Flowing Mane	Silver Horn	Soft Music
Skydancer	Moon Teleport	Diamond Saddle	Flowing Mane	Pink Horn	Sweet Apples
Opal	Starlight Blasts	Crystal Crown	Flowing Mane	Pink Horn	Shiny Mirrors
Nimbus	Rainbow Beams	Magic Ribbon	Flowing Mane	Silver Horn	Sweet Apples
Penny	Flower Growth	Crystal Crown	Flowing Mane	Silver Horn	Soft Music
Sunbeam	Moon Teleport	Diamond Saddle	Braided Mane	Silver Horn	Shiny Mirrors
Echo	Flower Growth	Glitter Shield	Braided Mane	Silver Horn	Shiny Mirrors
Clover	Flower Growth	Crystal Crown	Flowing Mane	Silver Horn	Sweet Apples
Radiance	Flower Growth	Silver Bell	Braided Mane	Gold Horn	Soft Music
Blossom	Cloud Hopping	Silver Bell	Flowing Mane	Silver Horn	Soft Music

CLUE 1 Rounding

Detective Clover checks the logs of the magical stable. Help solve these word problems to decode the first clue!

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



Round 71 to the nearest ten ☐ → T

Round 46 to the nearest ten ☐ → A

Round 44 to the nearest ten ☐ → S

Round 6,709 to the nearest thousand ☐ → D

Round 566 to the nearest hundred ☐ → I

Round 18 to the nearest ten ☐ → V

Round 87 to the nearest ten ☐ → L

Round 2,000 to the nearest thousand ☐ → O

Round 34 to the nearest ten ☐ → N

Round 377 to the nearest hundred ☐ → R

Round 728 to the nearest hundred ☐ → G

Round 319 to the nearest hundred ☐ → H

Round 4,446 to the nearest thousand ☐ → E

Scratch space:

CLUE 2 Word problems

The glitter radar only displays estimated glow levels. Round the numbers to unlock the next secret.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

F							M	A		E
74	26	55	48	8	75	66			75	

.

Detective Clover found 2 magic apples yesterday and 72 more today. How many magic apples in all?

Answer: ☐ → **F**

Detective Clover lined up 5 rows of 11 glowing horseshoe nails. How many glowing horseshoe nails in all?

Answer: ☐ → **O**

Detective Clover lined up 6 rows of 8 sugar cubes. How many sugar cubes in all?

Answer: ☐ → **W**

Detective Clover found 13 star gems yesterday and 13 more today. How many star gems in all?

Answer: ☐ → **L**

Detective Clover found 45 glowing horseshoe nails yesterday and 30 more today. How many glowing horseshoe nails in all?

Answer: ☐ → **N**

There were 29 star gems. 21 were used up. How many star gems are left?

Answer: ☐ → **I**

Detective Clover lined up 6 rows of 11 star gems. How many star gems in all?

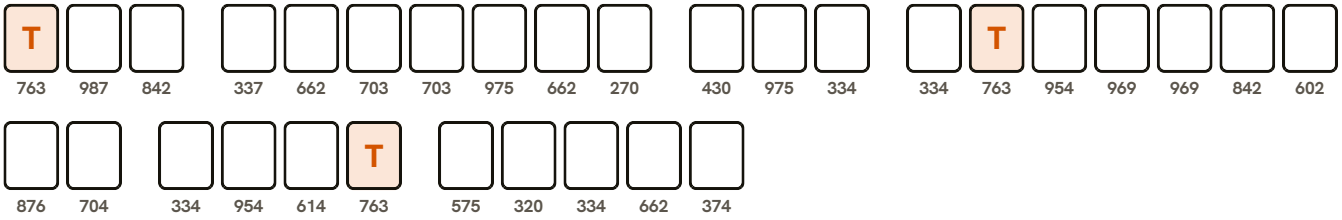
Answer: ☐ → **G**

Scratch space:

CLUE 3 Addition

We gathered glowing star gems from around the meadow. Add them together to read the witness report.

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



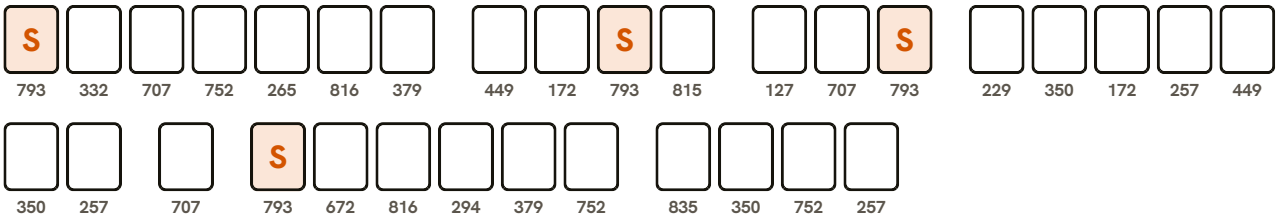
271 + 492 = ☐ → T	347 + 357 = ☐ → Y	318 + 296 = ☐ → F
326 + 377 = ☐ → L	358 + 617 = ☐ → A	334 + 620 = ☐ → O
359 + 216 = ☐ → M	639 + 330 = ☐ → P	248 + 126 = ☐ → C
679 + 308 = ☐ → H	272 + 330 = ☐ → D	182 + 248 = ☐ → W
201 + 119 = ☐ → U	140 + 130 = ☐ → N	144 + 193 = ☐ → V
353 + 489 = ☐ → E	285 + 591 = ☐ → B	335 + 327 = ☐ → I
182 + 152 = ☐ → S		

Scratch space:

CLUE 4 Subtraction

> The villain dropped shiny horseshoe nails as they ran away. Subtract the missing nails to reveal the next piece of evidence.

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



833 - 40 = ☐ → S

797 - 125 = ☐ → I

635 - 341 = ☐ → V

868 - 116 = ☐ → R

861 - 26 = ☐ → H

330 - 203 = ☐ → W

285 - 113 = ☐ → U

258 - 29 = ☐ → F

493 - 228 = ☐ → K

653 - 204 = ☐ → D

760 - 53 = ☐ → A

625 - 368 = ☐ → N

644 - 312 = ☐ → P

394 - 44 = ☐ → O

762 - 383 = ☐ → E

1119 - 304 = ☐ → T

1094 - 278 = ☐ → L

Scratch space:

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

> Warden Barnaby shares magical sugar cubes equally among five unicorn squads. Divide the treats to get the final clue!

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:

30 ÷ 5 = ☐	18 ÷ 9 = ☐	18 ÷ 2 = ☐	48 ÷ 4 = ☐	24 ÷ 8 = ☐
63 ÷ 9 = ☐	10 ÷ 1 = ☐	77 ÷ 7 = ☐	24 ÷ 6 = ☐	15 ÷ 3 = ☐
12 ÷ 12 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain teleports through moonbeams, then rings a silver bell.
2. The villain hops across clouds, then rings a silver bell.
3. The villain fires starlight blasts, then ties a magic ribbon.
4. The villain fires starlight blasts, then wears a crystal crown.
5. The villain hops across clouds, then straps on a diamond saddle.
6. The villain hops across clouds, then wears a crystal crown.
7. The villain shoots rainbow beams, then wears a crystal crown.
8. The villain grows giant flowers, then wears a crystal crown.
9. The villain fires starlight blasts, then rings a silver bell.
10. The villain shoots rainbow beams, then ties a magic ribbon.
11. The villain hops across clouds, then carries a glitter shield.
12. The villain teleports through moonbeams, then carries a glitter shield.

TEACHER / PARENT

Answer Key

Mystery of the Stolen Star Crystal

Culprit: Penny

Flower Growth · Crystal Crown · Flowing Mane · Silver Horn · Soft Music

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT HAVE A GLITTER SHIELD"

Round 71 to the nearest ten = 70 (T) · Round 46 to the nearest ten = 50 (A) · Round 44 to the nearest ten = 40 (S) · Round 6,709 to the nearest thousand = 7000 (D) · Round 566 to the nearest hundred = 600 (I) · Round 18 to the nearest ten = 20 (V) · Round 87 to the nearest ten = 90 (L) · Round 2,000 to the nearest thousand = 2000 (O) · Round 34 to the nearest ten = 30 (N) · Round 377 to the nearest hundred = 400 (R) · Round 728 to the nearest hundred = 700 (G) · Round 319 to the nearest hundred = 300 (H) · Round 4,446 to the nearest thousand = 4000 (E)

Clue 2 (Word problems): "FLOWING MANE"

Detective Clover found 2 magic apples yesterday and 72 more today. How many magic apples in all? = 74 (F) · Detective Clover lined up 5 rows of 11 glowing horseshoe nails. How many glowing horseshoe nails in all? = 55 (O) · Detective Clover lined up 6 rows of 8 sugar cubes. How many sugar cubes in all? = 48 (W) · Detective Clover found 13 star gems yesterday and 13 more today. How many star gems in all? = 26 (L) · Detective Clover found 45 glowing horseshoe nails yesterday and 30 more today. How many glowing horseshoe nails in all? = 75 (N) · There were 29 star gems. 21 were used up. How many star gems are left? = 8 (I) · Detective Clover lined up 6 rows of 11 star gems. How many star gems in all? = 66 (G)

Clue 3 (Addition): "THE VILLAIN WAS STOPPED BY SOFT MUSIC"

271 + 492 = 763 (T) · 347 + 357 = 704 (Y) · 318 + 296 = 614 (F) · 326 + 377 = 703 (L) · 358 + 617 = 975 (A) · 334 + 620 = 954 (O) · 359 + 216 = 575 (M) · 639 + 330 = 969 (P) · 248 + 126 = 374 (C) · 679 + 308 = 987 (H) · 272 + 330 = 602 (D) · 182 + 248 = 430 (W) · 201 + 119 = 320 (U) · 140 + 130 = 270 (N) · 144 + 193 = 337 (V) · 353 + 489 = 842 (E) · 285 + 591 = 876 (B) · 335 + 327 = 662 (I) · 182 + 152 = 334 (S)

Clue 4 (Subtraction): "SPARKLE DUST WAS FOUND ON A SILVER HORN"

833 - 40 = 793 (S) · 797 - 125 = 672 (I) · 635 - 341 = 294 (V) · 868 - 116 = 752 (R) · 861 - 26 = 835 (H) · 330 - 203 = 127 (W) · 285 - 113 = 172 (U) · 258 - 29 = 229 (F) · 493 - 228 = 265 (K) · 653 - 204 = 449 (D) · 760 - 53 = 707 (A) · 625 - 368 = 257 (N) · 644 - 312 = 332 (P) · 394 - 44 = 350 (O) · 762 - 383 = 379 (E) · 1119 - 304 = 815 (T) · 1094 - 278 = 816 (L)

Clue 5 (Division facts (1-12)): surviving statement is box 8 → Penny

30 ÷ 5 = 6 · 18 ÷ 9 = 2 · 18 ÷ 2 = 9 · 48 ÷ 4 = 12 · 24 ÷ 8 = 3 · 63 ÷ 9 = 7 · 10 ÷ 1 = 10 · 77 ÷ 7 = 11 · 24 ÷ 6 = 4 · 15 ÷ 3 = 5 · 12 ÷ 12 = 1