The Mystery of the Stolen Star Crystal

Grade 4 math · Skip counting, Rounding, Addition, Subtraction, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into the Great Tree of Sparkle Valley and took the sacred Star Crystal! The Meadow Keeper needs your help to catch the sneaky thief before the valley loses its magic glow 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 crystal thief is _____

Possible suspects

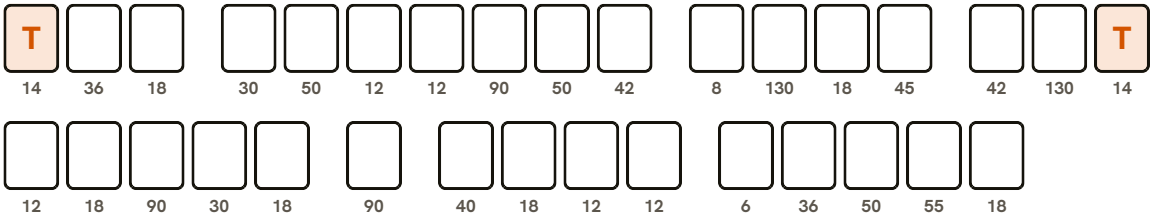
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	MAGIC POWER	SPECIAL AURA	HORSESHOE STYLE	MANE COLOR	DISTRACTION
Pebble Prance	cloud leap	moon glow	silver horseshoes	silver mane	soft lullaby
Celeste Star	cloud leap	moon glow	silver horseshoes	silver mane	shiny mirrors
Sunny Sparkle	cloud leap	glitter trail	silver horseshoes	silver mane	sweet apples
Tinsel Trot	rainbow beam	glitter trail	silver horseshoes	pink mane	sweet apples
Twinkle Tail	cloud leap	glitter trail	golden horseshoes	silver mane	soft lullaby
Flicker Fancy	rainbow beam	warm breeze	silver horseshoes	pink mane	sweet apples
Coral Cloud	crystal shield	sweet scent	silver horseshoes	silver mane	shiny mirrors
Pippin Pop	star flight	warm breeze	silver horseshoes	pink mane	shiny mirrors
Velvet Mist	blossom bloom	moon glow	golden horseshoes	pink mane	shiny mirrors
Misty Meadow	blossom bloom	glitter trail	silver horseshoes	silver mane	sweet apples
Ziggy Comet	rainbow beam	sweet scent	golden horseshoes	silver mane	sweet apples
Flutter Fern	crystal shield	glitter trail	golden horseshoes	pink mane	sweet apples
Whisper Willow	blossom bloom	sweet scent	silver horseshoes	silver mane	sweet apples
Dazzle Dash	rainbow beam	glitter trail	golden horseshoes	purple mane	soft lullaby
Nova Night	rainbow beam	bell chime	silver horseshoes	purple mane	shiny mirrors
Cosmo Crest	star flight	warm breeze	silver horseshoes	silver mane	sweet apples
Zipping Zephyr	crystal shield	sweet scent	silver horseshoes	pink mane	sweet apples
Ruby Ray	crystal shield	bell chime	silver horseshoes	silver mane	sweet apples
Barnaby Bright	crystal shield	glitter trail	golden horseshoes	pink mane	soft lullaby
Breezy Bell	star flight	moon glow	silver horseshoes	pink mane	sweet apples
Jasper Glow	blossom bloom	glitter trail	golden horseshoes	purple mane	sweet apples

CLUE 1 Skip counting

We counted stepping stones across the Sparkle River in equal skips to find the first clue.

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



Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → T

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 ☐ → N

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 ☐ → L

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → C

Skip-count by 10s. Fill the blank: 10, 20, ___, 40, 50 ☐ → V

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 ☐ → S

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, ___, 20, 22 ☐ → E

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 ☐ → A

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 ☐ → B

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 ☐ → H

Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 ☐ → D

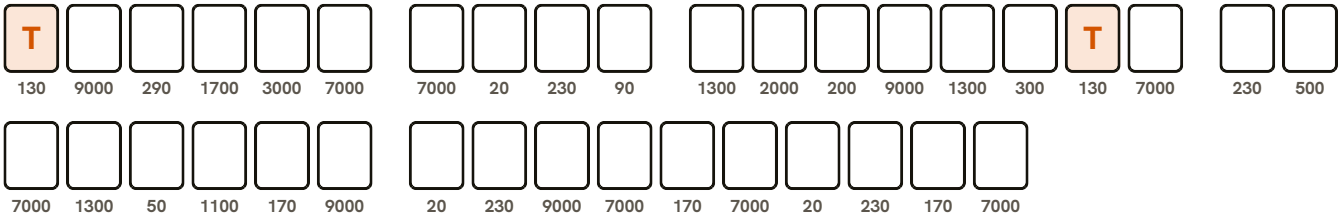
Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, ___, 55, 60 ☐ → I

Scratch space:

CLUE 2 Rounding

The magic glitter detector gave us a rough rounded estimate of the energy left behind.

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



Round 134 to the nearest ten ☐ → T

Round 1,852 to the nearest thousand ☐ → M

Round 3,253 to the nearest thousand ☐ → K

Round 292 to the nearest ten ☐ → A

Round 1,101 to the nearest hundred ☐ → V

Round 17 to the nearest ten ☐ → H

Round 508 to the nearest hundred ☐ → F

Round 1,299 to the nearest hundred ☐ → I

Round 6,677 to the nearest thousand ☐ → S

Round 298 to the nearest hundred ☐ → N

Round 1,732 to the nearest hundred ☐ → C

Round 233 to the nearest hundred ☐ → P

Round 48 to the nearest ten ☐ → L

Round 8,559 to the nearest thousand ☐ → R

Round 90 to the nearest ten ☐ → W

Round 168 to the nearest ten ☐ → E

Round 231 to the nearest ten ☐ → O

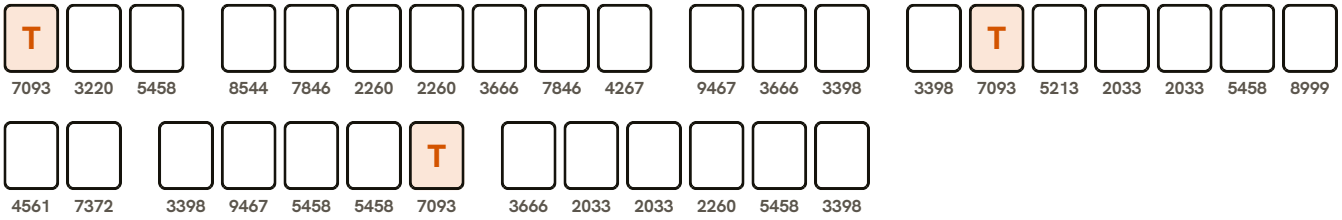
Scratch space:

CLUE 3

Addition

By adding up all the fallen star flakes in the orchard, we unlocked another piece of evidence.

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



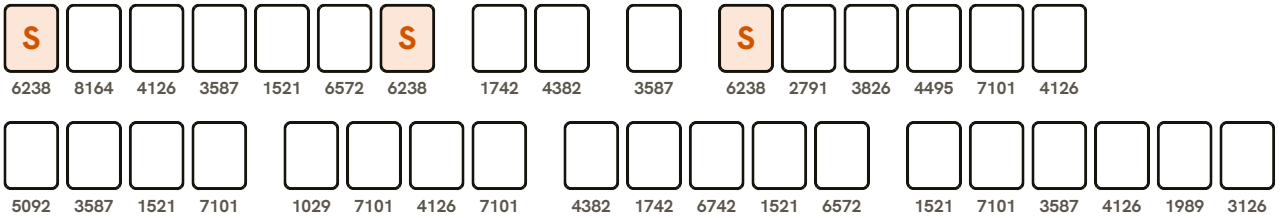
3623 + 3470 = ☐ → T	2999 + 6468 = ☐ → W	2093 + 1573 = ☐ → A
2698 + 2515 = ☐ → O	1117 + 916 = ☐ → P	2687 + 2771 = ☐ → E
2653 + 1908 = ☐ → B	3958 + 3414 = ☐ → Y	734 + 1526 = ☐ → L
1744 + 2523 = ☐ → N	4733 + 3811 = ☐ → V	3953 + 3893 = ☐ → I
1913 + 1307 = ☐ → H	4959 + 4040 = ☐ → D	1335 + 2063 = ☐ → S

Scratch space:

CLUE 4 Subtraction

We subtracted the missing magic ribbons from the total pile to see what remained.

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



10247 - 4009 = ☐ → S

11209 - 4467 = ☐ → U

8204 - 4378 = ☐ → L

5665 - 2078 = ☐ → A

6488 - 1396 = ☐ → M

8840 - 4714 = ☐ → R

7189 - 617 = ☐ → D

10229 - 3128 = ☐ → E

8781 - 4399 = ☐ → F

3638 - 2609 = ☐ → W

4143 - 2401 = ☐ → O

5152 - 3163 = ☐ → B

7024 - 2529 = ☐ → V

4985 - 2194 = ☐ → I

5079 - 1953 = ☐ → Y

10712 - 2548 = ☐ → T

5808 - 4287 = ☐ → N

Scratch space:

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

> We divided the total magic horseshoes into equal groups for each search team.

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:

12 ÷ 1 = ☐	40 ÷ 4 = ☐	8 ÷ 8 = ☐	49 ÷ 7 = ☐	121 ÷ 11 = ☐
32 ÷ 8 = ☐	18 ÷ 9 = ☐	3 ÷ 1 = ☐	12 ÷ 2 = ☐	90 ÷ 10 = ☐
64 ÷ 8 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain made a blossom bloom, then cast a sweet scent.
2. The villain raised a crystal shield, then created a moon glow.
3. The villain shot a rainbow beam, then created a moon glow.
4. The villain took off in star flight, then left a glitter trail.
5. The villain performed a cloud leap, then left a glitter trail.
6. The villain shot a rainbow beam, then made a bell chime.
7. The villain took off in star flight, then made a bell chime.
8. The villain took off in star flight, then cast a sweet scent.
9. The villain performed a cloud leap, then cast a sweet scent.
10. The villain made a blossom bloom, then left a glitter trail.
11. The villain raised a crystal shield, then made a bell chime.
12. The villain took off in star flight, then blew a warm breeze.

TEACHER / PARENT

Answer Key

The Mystery of the Stolen Star Crystal

Culprit: Sunny Sparkle

cloud leap · glitter trail · silver horseshoes · silver mane · sweet apples

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Skip counting): "THE VILLAIN DOES NOT LEAVE A BELL CHIME"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 = 42 (N) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (O) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 = 12 (L) · Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (C) · Skip-count by 10s. Fill the blank: 10, 20, ___, 40, 50 = 30 (V) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (M) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, ___, 20, 22 = 18 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 = 90 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 = 40 (B) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 = 8 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, ___, 55, 60 = 50 (I)

Clue 2 (Rounding): "TRACKS SHOW IMPRINTS OF SILVER HORSESHOES"

Round 134 to the nearest ten = 130 (T) · Round 1,852 to the nearest thousand = 2000 (M) · Round 3,253 to the nearest thousand = 3000 (K) · Round 292 to the nearest ten = 290 (A) · Round 1,101 to the nearest hundred = 1100 (V) · Round 17 to the nearest ten = 20 (H) · Round 508 to the nearest hundred = 500 (F) · Round 1,299 to the nearest hundred = 1300 (I) · Round 6,677 to the nearest thousand = 7000 (S) · Round 298 to the nearest hundred = 300 (N) · Round 1,732 to the nearest hundred = 1700 (C) · Round 233 to the nearest hundred = 200 (P) · Round 48 to the nearest ten = 50 (L) · Round 8,559 to the nearest thousand = 9000 (R) · Round 90 to the nearest ten = 90 (W) · Round 168 to the nearest ten = 170 (E) · Round 231 to the nearest ten = 230 (O)

Clue 3 (Addition): "THE VILLAIN WAS STOPPED BY SWEET APPLES"

3623 + 3470 = 7093 (T) · 2999 + 6468 = 9467 (W) · 2093 + 1573 = 3666 (A) · 2698 + 2515 = 5213 (O) · 1117 + 916 = 2033 (P) · 2687 + 2771 = 5458 (E) · 2653 + 1908 = 4561 (B) · 3958 + 3414 = 7372 (Y) · 734 + 1526 = 2260 (L) · 1744 + 2523 = 4267 (N) · 4733 + 3811 = 8544 (V) · 3953 + 3893 = 7846 (I) · 1913 + 1307 = 3220 (H) · 4959 + 4040 = 8999 (D) · 1335 + 2063 = 3398 (S)

Clue 4 (Subtraction): "STRANDS OF A SILVER MANE WERE FOUND NEARBY"

10247 - 4009 = 6238 (S) · 11209 - 4467 = 6742 (U) · 8204 - 4378 = 3826 (L) · 5665 - 2078 = 3587 (A) · 6488 - 1396 = 5092 (M) · 8840 - 4714 = 4126 (R) · 7189 - 617 = 6572 (D) · 10229 - 3128 = 7101 (E) · 8781 - 4399 = 4382 (F) · 3638 - 2609 = 1029 (W) · 4143 - 2401 = 1742 (O) · 5152 - 3163 = 1989 (B) · 7024 - 2529 = 4495 (V) · 4985 - 2194 = 2791 (I) · 5079 - 1953 = 3126 (Y) · 10712 - 2548 = 8164 (T) · 5808 - 4287 = 1521 (N)

Clue 5 (Division facts (1-12)): surviving statement is box 5 → Sunny Sparkle

12 ÷ 1 = 12 · 40 ÷ 4 = 10 · 8 ÷ 8 = 1 · 49 ÷ 7 = 7 · 121 ÷ 11 = 11 · 32 ÷ 8 = 4 · 18 ÷ 9 = 2 · 3 ÷ 1 = 3 · 12 ÷ 2 = 6 · 90 ÷ 10 = 9 · 64 ÷ 8 = 8