

The Sparkle Valley Mystery

Grade 1 math · Addition, Subtraction, Place value, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

Oh no! Someone took the magic glitter from the Great Rainbow Cup. Now Sparkle Valley is losing its bright colors! We must help the Glitter Keeper find the thief.

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 glitter 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 HORN POWER	CUTIE MARK	WRITING HAND	MANE COLOR	SILLY FEAR
Chippy	flower bloom	star sticker	right handed	gold mane	afraid of frogs
Rusty	sparkle dust	cloud badge	right handed	gold mane	afraid of mud
Petal	bubble blast	moon seal	right handed	blue mane	afraid of frogs
Starry	bubble blast	sun stamp	left handed	gold mane	afraid of mud
Pip	night glow	moon seal	right handed	pink mane	afraid of rain
Shine	night glow	sun stamp	left handed	pink mane	afraid of frogs
Sky	bubble blast	moon seal	left handed	pink mane	afraid of frogs
Dewdrop	bubble blast	heart patch	left handed	gold mane	afraid of mud
Coco	sparkle dust	star sticker	left handed	pink mane	afraid of frogs
Misty	sparkle dust	sun stamp	left handed	gold mane	afraid of frogs
Breeze	night glow	sun stamp	left handed	pink mane	afraid of rain
Peachy	sparkle dust	cloud badge	left handed	blue mane	afraid of frogs
Pinky	rainbow beam	star sticker	right handed	gold mane	afraid of frogs
Toby	rainbow beam	star sticker	left handed	gold mane	afraid of frogs
Glitter	flower bloom	star sticker	left handed	blue mane	afraid of rain
Cloudy	sparkle dust	heart patch	left handed	gold mane	afraid of frogs
Sparkles	bubble blast	sun stamp	left handed	gold mane	afraid of frogs
Luna	bubble blast	sun stamp	left handed	pink mane	afraid of mud
Goldie	rainbow beam	cloud badge	left handed	blue mane	afraid of frogs
Twinkle	rainbow beam	moon seal	left handed	gold mane	afraid of frogs
Sunny	bubble blast	heart patch	left handed	gold mane	afraid of frogs

CLUE 1 Addition

We count the empty glitter jars. There are four green jars and five pink jars. Help us add them to find the first clue.

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

T 11 9 14	T 11 9 4 14 6	2 8 14 10	T 20 8 11	9 16 19 14
16 10 7 20	T 10 11 16 17 15			

$5 + 6 = \square \rightarrow \boxed{\text{T}}$	$4 + 2 = \square \rightarrow \boxed{\text{F}}$	$7 + 7 = \square \rightarrow \boxed{\text{E}}$	$12 + 4 = \square \rightarrow \boxed{\text{A}}$
$7 + 10 = \square \rightarrow \boxed{\text{M}}$	$3 + 1 = \square \rightarrow \boxed{\text{I}}$	$5 + 4 = \square \rightarrow \boxed{\text{H}}$	
$14 + 5 = \square \rightarrow \boxed{\text{V}}$	$2 + 6 = \square \rightarrow \boxed{\text{O}}$	$9 + 6 = \square \rightarrow \boxed{\text{P}}$	$3 + 4 = \square \rightarrow \boxed{\text{U}}$
$3 + 7 = \square \rightarrow \boxed{\text{S}}$	$10 + 10 = \square \rightarrow \boxed{\text{N}}$	$1 + 1 = \square \rightarrow \boxed{\text{D}}$	

Scratch space:

CLUE 2 Subtraction

The thief took some magic berries. We had ten berries but some are gone. Subtract to see how many the thief ate.

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

T							T	T			T							
15	6	8	19	4	17	15	15	8	18	15	6	17	8	10	17	1		
			T															
4	8	10	15	6	7	9	11	8	11									

$18 - 3 = \square \rightarrow$ T	$16 - 8 = \square \rightarrow$ E	$16 - 7 = \square \rightarrow$ N	$3 - 2 = \square \rightarrow$ S
$9 - 3 = \square \rightarrow$ H	$18 - 8 = \square \rightarrow$ F	$19 - 1 = \square \rightarrow$ R	$18 - 1 = \square \rightarrow$ I
$5 - 1 = \square \rightarrow$ L	$20 - 1 = \square \rightarrow$ G	$20 - 9 = \square \rightarrow$ D	$15 - 8 = \square \rightarrow$ A

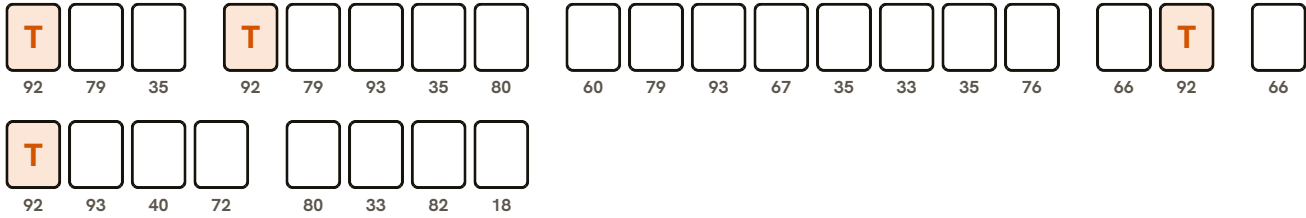
Scratch space:

CLUE 3

Place value

A magic screen shows blocks of tens and ones. Look at the places to find the secret number.

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



What number has 9 tens and 2 ones? → **T**

What number has 8 tens and 0 ones? → **F**

What number has 7 tens and 6 ones? → **D**

What number has 9 tens and 3 ones? → **I**

What number has 7 tens and 2 ones? → **Y**

What number has 6 tens and 6 ones? → **A**

What number has 3 tens and 5 ones? → **E**

What number has 6 tens and 0 ones? → **S**

What number has 7 tens and 9 ones? → **H**

What number has 8 tens and 2 ones? → **O**

What number has 6 tens and 7 ones? → **V**

What number has 4 tens and 0 ones? → **N**

What number has 3 tens and 3 ones? → **R**

What number has 1 ten and 8 ones? → **G**

Scratch space:

CLUE 4 Skip counting

The thief ran up the rainbow steps. They skipped some steps. Count by twos to find the next step.

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

W														
50	18	140	60	30	25	21	45	60	55	21	120	24	39	28
33	120	18	8	30	70	120								

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 → **W**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 → **E**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **R**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **I**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **F**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 → **T**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **G**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 → **U**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **N**

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **B**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **O**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 → **S**

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

Scratch space:

CLUE 5**Missing addends - the last clue**

Six crystal stars plus some more stars make nine. Find the missing number to get the last 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:

$7 + \underline{\quad} = 8$

$8 + \underline{\quad} = 11$

$6 + \underline{\quad} = 16$

$5 + \underline{\quad} = 14$

$8 + \underline{\quad} = 20$

$3 + \underline{\quad} = 8$

$9 + \underline{\quad} = 11$

$10 + \underline{\quad} = 21$

$9 + \underline{\quad} = 16$

$10 + \underline{\quad} = 14$

$8 + \underline{\quad} = 16$

Step 2 - cross out the sentence with each answer:

1. The villain shoots a rainbow beam to block the path, then leaves a sticky star sticker behind.
2. The villain shoots a rainbow beam to block the path, then tears a small heart patch.
3. The villain creates a bubble blast to escape, then tears a small heart patch.
4. The villain shoots a rainbow beam to block the path, then accidents drop a sun stamp.
5. The villain creates a bubble blast to escape, then drops a fluffy cloud badge.
6. The villain throws sparkle dust to blind the guards, then tears a small heart patch.
7. The villain uses a bright night glow to run away, then tears a small heart patch.
8. The villain uses a bright night glow to run away, then leaves a sticky star sticker behind.
9. The villain makes a flower bloom to hide behind, then drops a fluffy cloud badge.
10. The villain shoots a rainbow beam to block the path, then loses a shiny moon seal.
11. The villain makes a flower bloom to hide behind, then tears a small heart patch.
12. The villain shoots a rainbow beam to block the path, then drops a fluffy cloud badge.

Answer Key

The Sparkle Valley Mystery

Culprit: Cloudy

sparkle dust · heart patch · left handed · gold mane · afraid of frogs

Trail: Start 21 → Clue 1 15 → Clue 2 10 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT HAVE A SUN STAMP"

$5 + 6 = 11$ (T) · $4 + 2 = 6$ (F) · $7 + 7 = 14$ (E) · $12 + 4 = 16$ (A) · $7 + 10 = 17$ (M) · $3 + 1 = 4$ (I) · $5 + 4 = 9$ (H) · $14 + 5 = 19$ (V) · $2 + 6 = 8$ (O) · $9 + 6 = 15$ (P) · $3 + 4 = 7$ (U) · $3 + 7 = 10$ (S) · $10 + 10 = 20$ (N) · $1 + 1 = 2$ (D)

Clue 2 (Subtraction): "THE GLITTER THIEF IS LEFT HANDED"

$18 - 3 = 15$ (T) · $16 - 8 = 8$ (E) · $16 - 7 = 9$ (N) · $3 - 2 = 1$ (S) · $9 - 3 = 6$ (H) · $18 - 8 = 10$ (F) · $19 - 1 = 18$ (R) · $18 - 1 = 17$ (I) · $5 - 1 = 4$ (L) · $20 - 1 = 19$ (G) · $20 - 9 = 11$ (D) · $15 - 8 = 7$ (A)

Clue 3 (Place value): "THE THIEF SHIVERED AT A TINY FROG"

What number has 9 tens and 2 ones? = 92 (T) · What number has 8 tens and 0 ones? = 80 (F) · What number has 7 tens and 6 ones? = 76 (D) · What number has 9 tens and 3 ones? = 93 (I) · What number has 7 tens and 2 ones? = 72 (Y) · What number has 6 tens and 6 ones? = 66 (A) · What number has 3 tens and 5 ones? = 35 (E) · What number has 6 tens and 0 ones? = 60 (S) · What number has 7 tens and 9 ones? = 79 (H) · What number has 8 tens and 2 ones? = 82 (O) · What number has 6 tens and 7 ones? = 67 (V) · What number has 4 tens and 0 ones? = 40 (N) · What number has 3 tens and 3 ones? = 33 (R) · What number has 1 ten and 8 ones? = 18 (G)

Clue 4 (Skip counting): "WE FOUND GOLD HAIR ON THE BUSH"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 = 50 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (R) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (I) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (F) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (G) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 = 30 (U) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (B) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 = 60 (O) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 = 70 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (L)

Clue 5 (Missing addends): surviving statement is box 6 → Cloudy

$7 + \underline{\quad} = 8 = 1$ · $8 + \underline{\quad} = 11 = 3$ · $6 + \underline{\quad} = 16 = 10$ · $5 + \underline{\quad} = 14 = 9$ · $8 + \underline{\quad} = 20 = 12$ · $3 + \underline{\quad} = 8 = 5$ · $9 + \underline{\quad} = 11 = 2$ · $10 + \underline{\quad} = 21 = 11$ · $9 + \underline{\quad} = 16 = 7$ · $10 + \underline{\quad} = 14 = 4$ · $8 + \underline{\quad} = 16 = 8$