



The Case of the Missing Paintbrush

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

Detective: _____ Date: _____

Oh no! A sneaky Magic Thief broke into the Royal Studio. They took the magic paintbrush! Now we must find them.

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 Magic 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	MAGIC GEAR	HOLDING HAND	HAIR COLOR	WEAKNESS
Peter	Pixie Dust	Magic Carpet	Left Handed	Gold Hair	Bright Light
Daisy	Wind Flight	Magic Mirror	Left Handed	Gold Hair	Loud Singing
Flynn	Pixie Dust	Glass Slipper	Left Handed	Red Hair	Loud Singing
Woody	Wind Flight	Shell Necklace	Right Handed	Red Hair	Loud Singing
Naveen	Magic Wand	Magic Lamp	Left Handed	Gold Hair	Loud Singing
Philip	Ice Magic	Shell Necklace	Right Handed	Black Hair	Bright Light
Jasmine	Healer Glow	Magic Carpet	Right Handed	Red Hair	Loud Singing
Cinderella	Pixie Dust	Magic Lamp	Left Handed	Gold Hair	Loud Singing
Belle	Ice Magic	Magic Carpet	Right Handed	Black Hair	Tickles
Buzz	Pixie Dust	Magic Mirror	Left Handed	Gold Hair	Tickles
Simba	Ice Magic	Glass Slipper	Right Handed	Red Hair	Tickles
Donald	Ice Magic	Shell Necklace	Left Handed	Black Hair	Tickles
Aladdin	Wind Flight	Magic Carpet	Right Handed	Gold Hair	Loud Singing
Wendy	Ice Magic	Magic Carpet	Left Handed	Red Hair	Tickles
Aurora	Magic Wand	Glass Slipper	Left Handed	Gold Hair	Loud Singing
Rapunzel	Wind Flight	Magic Carpet	Right Handed	Black Hair	Loud Singing
Minnie	Healer Glow	Shell Necklace	Left Handed	Gold Hair	Loud Singing
Tiana	Wind Flight	Magic Lamp	Right Handed	Red Hair	Loud Singing
Goofy	Wind Flight	Shell Necklace	Left Handed	Gold Hair	Bright Light
Mickey	Wind Flight	Glass Slipper	Right Handed	Gold Hair	Loud Singing
Alice	Healer Glow	Magic Carpet	Right Handed	Black Hair	Tickles

CLUE 1 Addition

We need to add up the magic stars to open the studio gate. Let us count how many we have in all!

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

T										T									
17	3	10	2	6	10	20	7	19	17	3	4	10	5	13	18	10	2		
		T																	
6	18	17	3	20	8	10	20	2	3	10	12	12							
6	10	11	7	12	20	11	10												

$8 + 9 = \square \rightarrow$ T	$13 + 7 = \square \rightarrow$ A	$10 + 3 = \square \rightarrow$ D	
$1 + 1 = \square \rightarrow$ S	$5 + 3 = \square \rightarrow$ V	$3 + 4 = \square \rightarrow$ K	$3 + 8 = \square \rightarrow$ C
$1 + 5 = \square \rightarrow$ N	$8 + 11 = \square \rightarrow$ Y	$4 + 1 = \square \rightarrow$ F	$6 + 4 = \square \rightarrow$ E
$7 + 11 = \square \rightarrow$ O	$5 + 7 = \square \rightarrow$ L	$1 + 3 = \square \rightarrow$ I	$1 + 2 = \square \rightarrow$ H

Scratch space:

CLUE 2

We find tracks left in pairs of two. Let us skip count the sneaky footprints to see where they go!

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 → **V**

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

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

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

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

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, , 18, 20 → **A**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 →

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **F**

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

Scratch space:

CLUE 3

Subtraction

The thief dropped some sparkly gems as they ran. Let us subtract the lost gems to see what is left!

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

T												T							
9	1	15	8	6	18	18	5	6	12	1	5	9	15	2	18	10	17	14	
2	6	12	4	6	12	4	11	3	10	7	17	2							

$11 - 2 = \square \rightarrow \boxed{\text{T}}$

$14 - 7 = \square \rightarrow \boxed{\text{M}}$

$19 - 5 = \square \rightarrow \boxed{\text{D}}$

$16 - 8 = \square \rightarrow \boxed{\text{V}}$

$19 - 7 = \square \rightarrow \boxed{\text{N}}$

$20 - 2 = \square \rightarrow \boxed{\text{L}}$

$13 - 2 = \square \rightarrow \boxed{\text{F}}$

$6 - 1 = \square \rightarrow \boxed{\text{A}}$

$18 - 3 = \square \rightarrow \boxed{\text{E}}$

$12 - 2 = \square \rightarrow \boxed{\text{O}}$

$12 - 8 = \square \rightarrow \boxed{\text{G}}$

$6 - 4 = \square \rightarrow \boxed{\text{S}}$

$14 - 8 = \square \rightarrow \boxed{\text{I}}$

$6 - 3 = \square \rightarrow \boxed{\text{R}}$

$18 - 1 = \square \rightarrow \boxed{\text{U}}$

$3 - 2 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 4 Place value

We found a box of magic tickets. Let us count the tens and ones to read the secret locker number!

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

T															
33	85	23	14	55	49	24	23	62	14	23	29	23	85	44	50
62	66	24	23	59	32	66	13	49	29	59	59	66	32	50	85

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

What number has 3 tens and 2 ones? → **L**

What number has 5 tens and 0 ones? → **D**

What number has 2 tens and 4 ones? → **M**

What number has 5 tens and 5 ones? → **R**

What number has 1 ten and 4 ones? → **C**

What number has 2 tens and 3 ones? → **E**

What number has 4 tens and 9 ones? → **I**

What number has 5 tens and 9 ones? → **G**

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

What number has 1 ten and 3 ones? → **W**

What number has 8 tens and 5 ones? → **H**

What number has 4 tens and 4 ones? → **A**

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

What number has 6 tens and 2 ones? → **S**

Scratch space:

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

We need ten keys to open the big lock but we only have six. How many more keys do we need to find?

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:

$2 + \underline{\quad} = 5 \quad \boxed{\quad}$

$2 + \underline{\quad} = 9 \quad \boxed{\quad}$

$2 + \underline{\quad} = 7 \quad \boxed{\quad}$

$5 + \underline{\quad} = 9 \quad \boxed{\quad}$

$3 + \underline{\quad} = 11 \quad \boxed{\quad}$

$4 + \underline{\quad} = 5 \quad \boxed{\quad}$

$2 + \underline{\quad} = 4 \quad \boxed{\quad}$

$2 + \underline{\quad} = 14 \quad \boxed{\quad}$

$3 + \underline{\quad} = 9 \quad \boxed{\quad}$

$2 + \underline{\quad} = 13 \quad \boxed{\quad}$

$6 + \underline{\quad} = 15 \quad \boxed{\quad}$

Step 2 - cross out the sentence with each answer:

1. The villain uses warm healer glow, then rides off on a magic carpet.
2. The villain sprinkles glowing pixie dust, then rides off on a magic carpet.
3. The villain waves a glowing magic wand, then drops a glass slipper.
4. The villain sprinkles glowing pixie dust, then looks in a magic mirror.
5. The villain waves a glowing magic wand, then grabs a magic lamp.
6. The villain sprinkles glowing pixie dust, then drops a glass slipper.
7. The villain flies away on wind flight, then looks in a magic mirror.
8. The villain shoots freezing ice magic, then drops a glass slipper.
9. The villain sprinkles glowing pixie dust, then steals a shell necklace.
10. The villain sprinkles glowing pixie dust, then grabs a magic lamp.
11. The villain shoots freezing ice magic, then rides off on a magic carpet.
12. The villain uses warm healer glow, then grabs a magic lamp.

Answer Key

The Case of the Missing Paintbrush

Culprit: Cinderella

Pixie Dust · Magic Lamp · Left Handed · Gold Hair · Loud Singing

Trail: Start 21 → Clue 1 16 → Clue 2 8 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SNEAKY THIEF DOES NOT HAVE A SHELL NECKLACE"

$8 + 9 = 17$ (T) · $13 + 7 = 20$ (A) · $10 + 3 = 13$ (D) · $1 + 1 = 2$ (S) · $5 + 3 = 8$ (V) · $3 + 4 = 7$ (K) · $3 + 8 = 11$ (C) · $1 + 5 = 6$ (N) · $8 + 11 = 19$ (Y) · $4 + 1 = 5$ (F) · $6 + 4 = 10$ (E) · $7 + 11 = 18$ (O) · $5 + 7 = 12$ (L) · $1 + 3 = 4$ (I) · $1 + 2 = 3$ (H)

Clue 2 (Skip counting): "THE VILLAIN WRITES WITH THEIR LEFT HAND"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (V) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 = 50 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 = 60 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (I) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (N)

Clue 3 (Subtraction): "THE VILLAIN HATES LOUD SINGING FROM US"

$11 - 2 = 9$ (T) · $14 - 7 = 7$ (M) · $19 - 5 = 14$ (D) · $16 - 8 = 8$ (V) · $19 - 7 = 12$ (N) · $20 - 2 = 18$ (L) · $13 - 2 = 11$ (F) · $6 - 1 = 5$ (A) · $18 - 3 = 15$ (E) · $12 - 2 = 10$ (O) · $12 - 8 = 4$ (G) · $6 - 4 = 2$ (S) · $14 - 8 = 6$ (I) · $6 - 3 = 3$ (R) · $18 - 1 = 17$ (U) · $3 - 2 = 1$ (H)

Clue 4 (Place value): "THE CRIME SCENE HAD SOME GLOWING GOLD HAIR"

What number has 3 tens and 3 ones? = 33 (T) · What number has 3 tens and 2 ones? = 32 (L) · What number has 5 tens and 0 ones? = 50 (D) · What number has 2 tens and 4 ones? = 24 (M) · What number has 5 tens and 5 ones? = 55 (R) · What number has 1 ten and 4 ones? = 14 (C) · What number has 2 tens and 3 ones? = 23 (E) · What number has 4 tens and 9 ones? = 49 (I) · What number has 5 tens and 9 ones? = 59 (G) · What number has 6 tens and 6 ones? = 66 (O) · What number has 1 ten and 3 ones? = 13 (W) · What number has 8 tens and 5 ones? = 85 (H) · What number has 4 tens and 4 ones? = 44 (A) · What number has 2 tens and 9 ones? = 29 (N) · What number has 6 tens and 2 ones? = 62 (S)

Clue 5 (Missing addends): surviving statement is box 10 → Cinderella

$2 + \underline{\quad} = 5 = 3$ · $2 + \underline{\quad} = 9 = 7$ · $2 + \underline{\quad} = 7 = 5$ · $5 + \underline{\quad} = 9 = 4$ · $3 + \underline{\quad} = 11 = 8$ · $4 + \underline{\quad} = 5 = 1$ · $2 + \underline{\quad} = 4 = 2$ · $2 + \underline{\quad} = 14 = 12$ · $3 + \underline{\quad} = 9 = 6$ · $2 + \underline{\quad} = 13 = 11$ · $6 + \underline{\quad} = 15 = 9$