



The Case of the Missing Magic Ink

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

Detective: _____ Date: _____

Oh no! Someone has snuck into the Inkwell Archive and stolen the magical sketches of our favorite characters! The Chief Animator needs your help. Solve the math puzzles, find the clues, and stop the Ink Thief before the magic fades 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 Ink 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 PROP	INK ABILITY	DRAWING HAND	WIG COLOR	DISTRACTION
Clarabelle	singing sea shell	floating paint bubbles	right-handed brush strokes	sunny yellow wig	bright shiny mirrors
Dewey	glowing poison apple	flying ink blots	left-handed brush strokes	fiery red wig	sweet smelling honey
Goofy	magical paintbrush	floating paint bubbles	left-handed brush strokes	sunny yellow wig	sweet smelling honey
Horace	magical paintbrush	flying ink blots	right-handed brush strokes	bright blue wig	loud ticking clocks
Morty	enchanted glass slipper	floating paint bubbles	right-handed brush strokes	bright blue wig	loud ticking clocks
Minnie	spinning pixie dust wand	glowing neon sketches	left-handed brush strokes	bright blue wig	loud ticking clocks
Ferdie	glowing poison apple	melting crayon walls	left-handed brush strokes	bright blue wig	loud ticking clocks
Oswald	spinning pixie dust wand	floating paint bubbles	left-handed brush strokes	sunny yellow wig	loud ticking clocks
Ortensia	enchanted glass slipper	floating paint bubbles	left-handed brush strokes	fiery red wig	bright shiny mirrors
Huey	singing sea shell	melting crayon walls	right-handed brush strokes	fiery red wig	bright shiny mirrors
Louie	singing sea shell	sparkling gold dust	left-handed brush strokes	fiery red wig	bright shiny mirrors
April	spinning pixie dust wand	floating paint bubbles	left-handed brush strokes	bright blue wig	sweet smelling honey
Scrooge	spinning pixie dust wand	floating paint bubbles	left-handed brush strokes	bright blue wig	loud ticking clocks
Clara	glowing poison apple	flying ink blots	right-handed brush strokes	fiery red wig	sweet smelling honey
Donald	singing sea shell	glowing neon sketches	left-handed brush strokes	fiery red wig	bright shiny mirrors
Daisy	spinning pixie dust wand	glowing neon sketches	left-handed brush strokes	fiery red wig	loud ticking clocks
Pete	spinning pixie dust wand	melting crayon walls	left-handed brush strokes	bright blue wig	loud ticking clocks
Gus	singing sea shell	glowing neon sketches	right-handed brush strokes	bright blue wig	bright shiny mirrors
May	singing sea shell	melting crayon walls	right-handed brush strokes	fiery red wig	sweet smelling honey
Mickey	glowing poison apple	flying ink blots	left-handed brush strokes	bright blue wig	loud ticking clocks
Pluto	spinning pixie dust wand	sparkling gold dust	left-handed brush strokes	bright blue wig	loud ticking clocks

CLUE 1

Our magical ink radar scan only gives us rounded numbers for safety. Round the total ink drops to the nearest ten to unlock the first archive vault.

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

400 90 3000 80 70 50 50 9000 70 4000 30 40 3000 600 4000 40 400

800 3000 50 400 7000 900 9000 500 40 4000 600

Round 421 to the nearest hundred $\rightarrow$ **T**

Round 67 to the nearest ten $\rightarrow$

Round 3,756 to the nearest thousand → **N**

Round 784 to the nearest hundred $\rightarrow$ **M**

Round 921 to the nearest hundred $\rightarrow$ **R**

Round 54 to the nearest ten $\rightarrow$ **L**

Round 76 to the nearest ten $\rightarrow$ **V**

Round 544 to the nearest hundred $\rightarrow$ **Y**

Round 44 to the nearest ten $\rightarrow$ **0**

Round 87 to the nearest ten $\rightarrow$ **H**

Round 3,451 to the nearest thousand → **E**

Round 6,642 to the nearest thousand $\rightarrow$ **C**

Round 29 to the nearest ten $\rightarrow$ **D**

Round 645 to the nearest hundred $\rightarrow$ **S**

Round 9,122 to the nearest thousand → **A**

Scratch space:

CLUE 2 Addition

We need to tally up all the magic sketchbooks left on the shelves. Add these stacks together to find our next clue.

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

T					T			T					T				
521	654	233	671	579	521	750	430	521	259	430	233	374	521	654	233	750	579
			T														
574	233	503	521	654	671	500	374										

$$262 + 259 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$215 + 215 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$427 + 323 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$226 + 353 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$241 + 262 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$178 + 81 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$319 + 335 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$123 + 251 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$213 + 287 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$386 + 188 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$85 + 148 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$310 + 361 = \boxed{} \rightarrow \boxed{\text{A}}$$

Scratch space:

CLUE 3

Subtraction

A giant ink blot covered some of our star stencils. Subtract the ruined stencils from the total to see what we have left.

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

T														
447	512	824	395	308	395	578	824	772	447	709	824	599	661	395

T												
447	314	772	392	314	548	282	772	470	343	772	392	395

$614 - 167 = \square \rightarrow \boxed{\text{T}}$

$947 - 238 = \square \rightarrow \boxed{\text{F}}$

$839 - 327 = \square \rightarrow \boxed{\text{H}}$

$962 - 384 = \square \rightarrow \boxed{\text{P}}$

$631 - 239 = \square \rightarrow \boxed{\text{K}}$

$457 - 62 = \square \rightarrow \boxed{\text{S}}$

$892 - 231 = \square \rightarrow \boxed{\text{R}}$

$535 - 65 = \square \rightarrow \boxed{\text{L}}$

$700 - 386 = \square \rightarrow \boxed{\text{I}}$

$372 - 90 = \square \rightarrow \boxed{\text{G}}$

$400 - 92 = \square \rightarrow \boxed{\text{U}}$

$924 - 152 = \square \rightarrow \boxed{\text{C}}$

$551 - 3 = \square \rightarrow \boxed{\text{N}}$

$881 - 282 = \square \rightarrow \boxed{\text{A}}$

$1027 - 203 = \square \rightarrow \boxed{\text{E}}$

$467 - 124 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The animation desks are set up in neat, equal rows. Multiply the number of desks by the pencils on each desk to find the secret path.

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

W															
144	64	99	28	40	80	90	22	33	25	21	80	90	22	28	99
35	24	40	64	20	21	88	25								

$12 \times 12 = \square \rightarrow \boxed{\text{W}}$

$11 \times 2 = \square \rightarrow \boxed{\text{S}}$

$7 \times 3 = \square \rightarrow \boxed{\text{A}}$

$7 \times 5 = \square \rightarrow \boxed{\text{B}}$

$9 \times 10 = \square \rightarrow \boxed{\text{D}}$

$4 \times 10 = \square \rightarrow \boxed{\text{U}}$

$7 \times 4 = \square \rightarrow \boxed{\text{O}}$

$8 \times 8 = \square \rightarrow \boxed{\text{E}}$

$11 \times 8 = \square \rightarrow \boxed{\text{I}}$

$9 \times 11 = \square \rightarrow \boxed{\text{F}}$

$10 \times 2 = \square \rightarrow \boxed{\text{H}}$

$10 \times 8 = \square \rightarrow \boxed{\text{N}}$

$4 \times 6 = \square \rightarrow \boxed{\text{L}}$

$3 \times 11 = \square \rightarrow \boxed{\text{T}}$

$5 \times 5 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

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

We have a pile of magical paint brushes to share equally among the brave young artist helpers. Divide them up to get our final lead.

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:

$44 \div 4 = \boxed{}$

$70 \div 10 = \boxed{}$

$96 \div 8 = \boxed{}$

$27 \div 3 = \boxed{}$

$3 \div 1 = \boxed{}$

$12 \div 6 = \boxed{}$

$20 \div 5 = \boxed{}$

$45 \div 9 = \boxed{}$

$110 \div 11 = \boxed{}$

$18 \div 3 = \boxed{}$

$1 \div 1 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain taps an enchanted glass slipper to teleport, then creates flying ink blots.
2. The villain blows into a singing sea shell to make music, then draws melting crayon walls.
3. The villain waves a magical paintbrush to freeze the ink, then leaves behind glowing neon sketches.
4. The villain twirls a spinning pixie dust wand to float, then draws melting crayon walls.
5. The villain blows into a singing sea shell to make music, then leaves behind glowing neon sketches.
6. The villain blows into a singing sea shell to make music, then splashes floating paint bubbles.
7. The villain twirls a spinning pixie dust wand to float, then scatters sparkling gold dust.
8. The villain twirls a spinning pixie dust wand to float, then leaves behind glowing neon sketches.
9. The villain blows into a singing sea shell to make music, then scatters sparkling gold dust.
10. The villain blows into a singing sea shell to make music, then creates flying ink blots.
11. The villain twirls a spinning pixie dust wand to float, then splashes floating paint bubbles.
12. The villain rolls a glowing poison apple across the floor, then creates flying ink blots.

Answer Key

The Case of the Missing Magic Ink

Culprit: Minnie

spinning pixie dust wand · glowing neon sketches · left-handed brush strokes · bright blue wig · loud ticking clocks

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT MELT CRAYONS"

Round 421 to the nearest hundred = 400 (T) · Round 67 to the nearest ten = 70 (I) · Round 3,756 to the nearest thousand = 4000 (N) · Round 784 to the nearest hundred = 800 (M) · Round 921 to the nearest hundred = 900 (R) · Round 54 to the nearest ten = 50 (L) · Round 76 to the nearest ten = 80 (V) · Round 544 to the nearest hundred = 500 (Y) · Round 44 to the nearest ten = 40 (O) · Round 87 to the nearest ten = 90 (H) · Round 3,451 to the nearest thousand = 3000 (E) · Round 6,642 to the nearest thousand = 7000 (C) · Round 29 to the nearest ten = 30 (D) · Round 645 to the nearest hundred = 600 (S) · Round 9,122 to the nearest thousand = 9000 (A)

Clue 2 (Addition): "THE ARTIST USED THEIR LEFT HAND"

$262 + 259 = 521$ (T) · $215 + 215 = 430$ (S) · $427 + 323 = 750$ (I) · $226 + 353 = 579$ (R) · $241 + 262 = 503$ (F) · $178 + 81 = 259$ (U) · $319 + 335 = 654$ (H) · $123 + 251 = 374$ (D) · $213 + 287 = 500$ (N) · $386 + 188 = 574$ (L) · $85 + 148 = 233$ (E) · $310 + 361 = 671$ (A)

Clue 3 (Subtraction): "THE SUSPECT FEARS TICKING CLOCKS"

$614 - 167 = 447$ (T) · $947 - 238 = 709$ (F) · $839 - 327 = 512$ (H) · $962 - 384 = 578$ (P) · $631 - 239 = 392$ (K) · $457 - 62 = 395$ (S) · $892 - 231 = 661$ (R) · $535 - 65 = 470$ (L) · $700 - 386 = 314$ (I) · $372 - 90 = 282$ (G) · $400 - 92 = 308$ (U) · $924 - 152 = 772$ (C) · $551 - 3 = 548$ (N) · $881 - 282 = 599$ (A) · $1027 - 203 = 824$ (E) · $467 - 124 = 343$ (O)

Clue 4 (Multiplication facts (1-12)): "WE FOUND STRANDS OF BLUE HAIR"

$12 \times 12 = 144$ (W) · $11 \times 2 = 22$ (S) · $7 \times 3 = 21$ (A) · $7 \times 5 = 35$ (B) · $9 \times 10 = 90$ (D) · $4 \times 10 = 40$ (U) · $7 \times 4 = 28$ (O) · $8 \times 8 = 64$ (E) · $11 \times 8 = 88$ (I) · $9 \times 11 = 99$ (F) · $10 \times 2 = 20$ (H) · $10 \times 8 = 80$ (N) · $4 \times 6 = 24$ (L) · $3 \times 11 = 33$ (T) · $5 \times 5 = 25$ (R)

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

$44 \div 4 = 11$ · $70 \div 10 = 7$ · $96 \div 8 = 12$ · $27 \div 3 = 9$ · $3 \div 1 = 3$ · $12 \div 6 = 2$ · $20 \div 5 = 4$ · $45 \div 9 = 5$ · $110 \div 11 = 10$ · $18 \div 3 = 6$ · $1 \div 1 = 1$