



The Great Art Studio Mystery

Grade 3 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 1-2

Detective: _____ Date: _____

The golden paintbrush has vanished from the Art Teacher's studio! A trail of messy doodles was left behind. We need to find the Sketch 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 the Sketch Thief is _____

Possible suspects

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

NAME	ART POWER	SINGING STYLE	DRAWING HAND	HAIR FEATURE	WEAKNESS
Aretha	glitter paint blast	fast rap beat	uses right hand to sketch	yellow pencil tucked in hair	a giant pink eraser
Elvis	clay molding	opera high note	uses left hand to sketch	glitter hair spray	a big wet sponge
Vincent	marker shading	sweet lullaby	uses left hand to sketch	glitter hair spray	a big wet sponge
Taylor	marker shading	fast rap beat	uses right hand to sketch	glitter hair spray	a very loud whistle
Claude	neon chalk glow	sweet lullaby	uses left hand to sketch	glitter hair spray	a very loud whistle
Mozart	neon chalk glow	opera high note	uses left hand to sketch	glitter hair spray	a giant pink eraser
Bach	neon chalk glow	sweet lullaby	uses left hand to sketch	blue chalk dust in hair	a giant pink eraser
Selena	clay molding	pop music hum	uses left hand to sketch	blue chalk dust in hair	a very loud whistle
Georgia	marker shading	opera high note	uses left hand to sketch	blue chalk dust in hair	a big wet sponge
Michelangelo	glitter paint blast	fast rap beat	uses left hand to sketch	glitter hair spray	a big wet sponge
Ariana	marker shading	pop music hum	uses left hand to sketch	blue chalk dust in hair	a big wet sponge
Henri	clay molding	opera high note	uses left hand to sketch	yellow pencil tucked in hair	a giant pink eraser
Frida	glitter paint blast	sweet lullaby	uses left hand to sketch	glitter hair spray	a big wet sponge
Bruno	watercolor splash	fast rap beat	uses right hand to sketch	blue chalk dust in hair	a giant pink eraser
Leonardo	watercolor splash	fast rap beat	uses right hand to sketch	yellow pencil tucked in hair	a big wet sponge
Justin	clay molding	fast rap beat	uses right hand to sketch	yellow pencil tucked in hair	a very loud whistle
Beethoven	clay molding	pop music hum	uses right hand to sketch	glitter hair spray	a big wet sponge
Stevie	neon chalk glow	fast rap beat	uses right hand to sketch	glitter hair spray	a very loud whistle
Salvador	glitter paint blast	opera high note	uses right hand to sketch	blue chalk dust in hair	a very loud whistle
Billie	marker shading	jazz whistling	uses left hand to sketch	glitter hair spray	a big wet sponge
Andy	glitter paint blast	jazz whistling	uses left hand to sketch	blue chalk dust in hair	a big wet sponge

CLUE 1

Rounding

The art studio scanner only shows rounded numbers. We rounded the pencil count to get the first code.

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

T			T														
8000	90	200	8000	90	3000	200	2000	900	40	300	300	400	8000	70	400	40	
			T										T				
2000	40	20	8000	60	40	80	50	200	40	8000							

Round 7,886 to the nearest thousand → **T**

Round 2,477 to the nearest thousand → **F**

Round 945 to the nearest hundred → **C**

Round 16 to the nearest ten → **S**

Round 449 to the nearest hundred → **O**

Round 76 to the nearest ten → **P**

Round 63 to the nearest ten → **R**

Round 93 to the nearest ten → **H**

Round 2,809 to the nearest thousand → **I**

Round 66 to the nearest ten → **D**

Round 313 to the nearest hundred → **N**

Round 52 to the nearest ten → **B**

Round 170 to the nearest hundred → **E**

Round 43 to the nearest ten → **A**

Scratch space:

CLUE 2 Addition

We added up all the colored crayons on the table. The total sum unlocked a locked paint box.

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

L																	
553	377	882	924	949	930	926	858	377	858	959	483	377	924	621	949	377	959
																L	L
778	377	533	377	882	661	637	926	858	661	926	924	949	377	778	930	553	553

$342 + 211 = \square \rightarrow \boxed{\text{L}}$

$181 + 196 = \square \rightarrow \boxed{\text{E}}$

$336 + 285 = \square \rightarrow \boxed{\text{C}}$

$434 + 344 = \square \rightarrow \boxed{\text{W}}$

$360 + 301 = \square \rightarrow \boxed{\text{O}}$

$211 + 426 = \square \rightarrow \boxed{\text{U}}$

$239 + 294 = \square \rightarrow \boxed{\text{R}}$

$367 + 515 = \square \rightarrow \boxed{\text{F}}$

$546 + 403 = \square \rightarrow \boxed{\text{H}}$

$453 + 473 = \square \rightarrow \boxed{\text{N}}$

$347 + 511 = \square \rightarrow \boxed{\text{D}}$

$617 + 313 = \square \rightarrow \boxed{\text{A}}$

$301 + 182 = \square \rightarrow \boxed{\text{K}}$

$493 + 466 = \square \rightarrow \boxed{\text{S}}$

$632 + 292 = \square \rightarrow \boxed{\text{T}}$

Scratch space:

CLUE 3

Subtraction

The suspect took some clay jars. We subtracted the stolen jars from the pile to see what was left.

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

T																		
782	861	495	449	592	230	151	230	326	230	449	266	592	743	318	230	301	614	767

		T						
326	495	782	311	431	743	151	767	495

$908 - 126 = \square \rightarrow \boxed{\text{T}}$

$760 - 311 = \square \rightarrow \boxed{\text{Y}}$

$791 - 177 = \square \rightarrow \boxed{\text{I}}$

$499 - 269 = \square \rightarrow \boxed{\text{A}}$

$475 - 324 = \square \rightarrow \boxed{\text{N}}$

$497 - 196 = \square \rightarrow \boxed{\text{B}}$

$778 - 186 = \square \rightarrow \boxed{\text{R}}$

$381 - 55 = \square \rightarrow \boxed{\text{W}}$

$299 - 33 = \square \rightarrow \boxed{\text{F}}$

$334 - 23 = \square \rightarrow \boxed{\text{S}}$

$474 - 156 = \square \rightarrow \boxed{\text{M}}$

$1092 - 325 = \square \rightarrow \boxed{\text{G}}$

$876 - 133 = \square \rightarrow \boxed{\text{O}}$

$1005 - 144 = \square \rightarrow \boxed{\text{H}}$

$622 - 191 = \square \rightarrow \boxed{\text{P}}$

$615 - 120 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

We saw neat rows of paint brushes on the shelf. We multiplied the rows to find the secret clue.

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

T															
63	110	18	48	40	7	7	49	110	21	20	72	110	25	2	120
			T	T											
54	40	25	63	63	18	49	110	21	25	49	72	132	49	21	120

$9 \times 7 = \square \rightarrow \boxed{\text{T}}$

$1 \times 7 = \square \rightarrow \boxed{\text{O}}$

$5 \times 8 = \square \rightarrow \boxed{\text{L}}$

$12 \times 6 = \square \rightarrow \boxed{\text{S}}$

$2 \times 9 = \square \rightarrow \boxed{\text{E}}$

$2 \times 1 = \square \rightarrow \boxed{\text{N}}$

$5 \times 4 = \square \rightarrow \boxed{\text{D}}$

$12 \times 10 = \square \rightarrow \boxed{\text{Y}}$

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

$11 \times 10 = \square \rightarrow \boxed{\text{H}}$

$7 \times 7 = \square \rightarrow \boxed{\text{R}}$

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

$6 \times 9 = \square \rightarrow \boxed{\text{G}}$

$11 \times 12 = \square \rightarrow \boxed{\text{P}}$

$6 \times 8 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

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

We shared the clean art aprons equally among the helper kids. The size of each group gave us the last hint.

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:

$44 \div 4 = \boxed{}$

$55 \div 11 = \boxed{}$

$72 \div 12 = \boxed{}$

$32 \div 8 = \boxed{}$

$15 \div 5 = \boxed{}$

$4 \div 2 = \boxed{}$

$24 \div 2 = \boxed{}$

$7 \div 7 = \boxed{}$

$56 \div 8 = \boxed{}$

$40 \div 4 = \boxed{}$

$54 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain lights up a neon chalk glow, then hums a sweet lullaby.
2. The villain makes a wet watercolor splash, then starts a smooth jazz whistling.
3. The villain sprays a glitter paint blast, then makes a soft pop music hum.
4. The villain creates a clay molding, then drops a fast rap beat.
5. The villain finishes a marker shading, then hums a sweet lullaby.
6. The villain finishes a marker shading, then starts a smooth jazz whistling.
7. The villain makes a wet watercolor splash, then hums a sweet lullaby.
8. The villain sprays a glitter paint blast, then hums a sweet lullaby.
9. The villain finishes a marker shading, then makes a soft pop music hum.
10. The villain lights up a neon chalk glow, then drops a fast rap beat.
11. The villain creates a clay molding, then sings an opera high note.
12. The villain sprays a glitter paint blast, then sings an opera high note.

Answer Key

The Great Art Studio Mystery

Culprit: Frida

glitter paint blast · sweet lullaby · uses left hand to sketch · glitter hair spray · a big wet sponge

Trail: Start 21 → Clue 1 14 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE THIEF CANNOT DO A FAST RAP BEAT"

Round 7,886 to the nearest thousand = 8000 (T) · Round 2,477 to the nearest thousand = 2000 (F) · Round 945 to the nearest hundred = 900 (C) · Round 16 to the nearest ten = 20 (S) · Round 449 to the nearest hundred = 400 (O) · Round 76 to the nearest ten = 80 (P) · Round 63 to the nearest ten = 60 (R) · Round 93 to the nearest ten = 90 (H) · Round 2,809 to the nearest thousand = 3000 (I) · Round 66 to the nearest ten = 70 (D) · Round 313 to the nearest hundred = 300 (N) · Round 52 to the nearest ten = 50 (B) · Round 170 to the nearest hundred = 200 (E) · Round 43 to the nearest ten = 40 (A)

Clue 2 (Addition): "LEFT HANDED SKETCHES WERE FOUND ON THE WALL"

$342 + 211 = 553$ (L) · $181 + 196 = 377$ (E) · $336 + 285 = 621$ (C) · $434 + 344 = 778$ (W) · $360 + 301 = 661$ (O) · $211 + 426 = 637$ (U) · $239 + 294 = 533$ (R) · $367 + 515 = 882$ (F) · $546 + 403 = 949$ (H) · $453 + 473 = 926$ (N) · $347 + 511 = 858$ (D) · $617 + 313 = 930$ (A) · $301 + 182 = 483$ (K) · $493 + 466 = 959$ (S) · $632 + 292 = 924$ (T)

Clue 3 (Subtraction): "THEY RAN AWAY FROM A BIG WET SPONGE"

$908 - 126 = 782$ (T) · $760 - 311 = 449$ (Y) · $791 - 177 = 614$ (I) · $499 - 269 = 230$ (A) · $475 - 324 = 151$ (N) · $497 - 196 = 301$ (B) · $778 - 186 = 592$ (R) · $381 - 55 = 326$ (W) · $299 - 33 = 266$ (F) · $334 - 23 = 311$ (S) · $474 - 156 = 318$ (M) · $1092 - 325 = 767$ (G) · $876 - 133 = 743$ (O) · $1005 - 144 = 861$ (H) · $622 - 191 = 431$ (P) · $615 - 120 = 495$ (E)

Clue 4 (Multiplication facts (1-12)): "THE FLOOR HAD SHINY GLITTER HAIR SPRAY"

$9 \times 7 = 63$ (T) · $1 \times 7 = 7$ (O) · $5 \times 8 = 40$ (L) · $12 \times 6 = 72$ (S) · $2 \times 9 = 18$ (E) · $2 \times 1 = 2$ (N) · $5 \times 4 = 20$ (D) · $12 \times 10 = 120$ (Y) · $7 \times 3 = 21$ (A) · $11 \times 10 = 110$ (H) · $7 \times 7 = 49$ (R) · $5 \times 5 = 25$ (I) · $6 \times 9 = 54$ (G) · $11 \times 12 = 132$ (P) · $6 \times 8 = 48$ (F)

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

$44 \div 4 = 11$ · $55 \div 11 = 5$ · $72 \div 12 = 6$ · $32 \div 8 = 4$ · $15 \div 5 = 3$ · $4 \div 2 = 2$ · $24 \div 2 = 12$ · $7 \div 7 = 1$ · $56 \div 8 = 7$ · $40 \div 4 = 10$ · $54 \div 6 = 9$