



# The Louvre Museum Mystery

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 1-2

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

Oh no! A famous painting is missing from the museum. The golden frame is empty. We must search the rooms of the Louvre. Help the guards find the sneaky Art Snatcher before the morning visitors arrive!

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 Art Snatcher is** \_\_\_\_\_

## Possible suspects

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

| NAME    | STEALTH GEAR       | BAG SPY GADGET  | EYE GEAR              | HAIR STYLE           | MUSEUM TRAP          |
|---------|--------------------|-----------------|-----------------------|----------------------|----------------------|
| Georges | Smoke Paint Bomb   | Flashlight Pen  | Wears dark glasses    | Messy Paint Splashed | Bright Flash Cameras |
| Vincent | Silent Rope Ladder | Glow Sketchbook | Wears dark glasses    | Curly Sunset Red     | Sticky Palette Paint |
| Hugo    | Suction Cup Shoes  | Grappling Brush | Does not wear glasses | Messy Paint Splashed | Bright Flash Cameras |
| Rene    | Suction Cup Shoes  | Squeaky Beret   | Wears dark glasses    | Spiky Neon Blue      | Slippery Floor Wax   |
| Marc    | Silent Rope Ladder | Grappling Brush | Wears dark glasses    | Spiky Neon Blue      | Bright Flash Cameras |
| Jules   | Suction Cup Shoes  | Flashlight Pen  | Does not wear glasses | Spiky Neon Blue      | Sticky Palette Paint |
| Claude  | Smoke Paint Bomb   | Grappling Brush | Does not wear glasses | Messy Paint Splashed | Slippery Floor Wax   |
| Jean    | Suction Cup Shoes  | Glow Sketchbook | Wears dark glasses    | Spiky Neon Blue      | Slippery Floor Wax   |
| Edgar   | Laser Glass Cutter | Magnifying Lens | Wears dark glasses    | Curly Sunset Red     | Bright Flash Cameras |
| Camille | Smoke Paint Bomb   | Flashlight Pen  | Does not wear glasses | Messy Paint Splashed | Bright Flash Cameras |
| Pierre  | Suction Cup Shoes  | Magnifying Lens | Wears dark glasses    | Messy Paint Splashed | Bright Flash Cameras |
| Chloe   | Smoke Paint Bomb   | Magnifying Lens | Wears dark glasses    | Spiky Neon Blue      | Slippery Floor Wax   |
| Sophie  | Smoke Paint Bomb   | Magnifying Lens | Wears dark glasses    | Curly Sunset Red     | Slippery Floor Wax   |
| Paul    | Silent Rope Ladder | Magnifying Lens | Wears dark glasses    | Spiky Neon Blue      | Sticky Palette Paint |
| Marie   | Invisibility Paint | Grappling Brush | Does not wear glasses | Spiky Neon Blue      | Sticky Palette Paint |
| Henri   | Silent Rope Ladder | Flashlight Pen  | Wears dark glasses    | Spiky Neon Blue      | Slippery Floor Wax   |
| Odilon  | Silent Rope Ladder | Magnifying Lens | Does not wear glasses | Messy Paint Splashed | Bright Flash Cameras |
| Auguste | Laser Glass Cutter | Flashlight Pen  | Wears dark glasses    | Spiky Neon Blue      | Slippery Floor Wax   |
| Leo     | Laser Glass Cutter | Glow Sketchbook | Does not wear glasses | Messy Paint Splashed | Slippery Floor Wax   |
| Pablo   | Invisibility Paint | Grappling Brush | Does not wear glasses | Spiky Neon Blue      | Slippery Floor Wax   |
| Adele   | Laser Glass Cutter | Magnifying Lens | Wears dark glasses    | Messy Paint Splashed | Sticky Palette Paint |

## CLUE 1 Rounding

We checked the security radar. It only shows rounded numbers. We rounded the steps to find this first clue!

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

|          |      |    |          |      |     |    |      |     |      |    |    |      |      |          |     |    |     |      |
|----------|------|----|----------|------|-----|----|------|-----|------|----|----|------|------|----------|-----|----|-----|------|
| <b>T</b> |      |    | <b>T</b> |      |     |    |      |     |      |    |    |      |      | <b>T</b> |     |    |     |      |
| 110      | 2000 | 30 | 110      | 2000 | 290 | 30 | 1300 | 200 | 9000 | 30 | 20 | 3700 | 9000 | 110      | 500 | 30 | 900 | 1100 |

  

|          |      |    |    |     |     |    |     |      |     |      |    |      |          |     |
|----------|------|----|----|-----|-----|----|-----|------|-----|------|----|------|----------|-----|
| <b>T</b> |      |    |    |     |     |    |     |      |     |      |    |      | <b>T</b> |     |
| 110      | 2000 | 30 | 20 | 370 | 170 | 30 | 900 | 7000 | 300 | 1700 | 30 | 1100 | 30       | 110 |

Round 110 to the nearest ten  → **T**

Round 154 to the nearest hundred  → **D**

Round 16 to the nearest ten  → **S**

Round 495 to the nearest hundred  → **W**

Round 1,718 to the nearest hundred  → **B**

Round 290 to the nearest hundred  → **Y**

Round 28 to the nearest ten  → **E**

Round 8,774 to the nearest thousand  → **O**

Round 291 to the nearest ten  → **I**

Round 1,148 to the nearest hundred  → **R**

Round 3,715 to the nearest hundred  → **N**

Round 374 to the nearest ten  → **Q**

Round 6,785 to the nearest thousand  → **K**

Round 1,297 to the nearest hundred  → **F**

Round 171 to the nearest ten  → **U**

Round 2,405 to the nearest thousand  → **H**

Round 941 to the nearest hundred  → **A**

Scratch space:

**CLUE 2**

Let us count the wet paintbrushes left on the floor. Adding them up gives us a new clue!

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

Diagram illustrating a sequence of 20 boxes (representing nodes) arranged in three rows. The boxes are labeled with numbers below them:

- Row 1: 6032, 3501, 6365, 5870, 4780, 6934, 8155, 8155, 2295, 8770, 7480
- Row 2: 4145, 4780, 6934, 6738, 3492, 2295, 4145, 4145, 3501, 4145, 7799, 6457, 6682, 2043, 3501, 3501, 8518, 7666, 6682, 6457
- Row 3: 6365, 8770, 2295, 8518, 3501

$$1949 + 4083 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{W}}$$

$$2266 + 3604 = \boxed{\phantom{0000}} \rightarrow \boxed{0}$$

$$1594 + 1898 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{L}}$$

$$2598 + 4882 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{K}}$$

$$4628 + 2054 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{T}}$$

$$826 + 1469 = \boxed{\phantom{0000}} \rightarrow \boxed{\mathbf{A}}$$

$$1193 + 850 = \boxed{\phantom{000}} \rightarrow \boxed{\text{H}}$$

$$2943 + 4723 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{P}}$$

$$3083 + 3851 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{N}}$$

$$4240 + 2125 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{F}}$$

$3992 + 4163 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{D}}$

$$5014 + 3504 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{M}}$$

$$2529 + 5270 = \boxed{\phantom{0000}} \rightarrow \boxed{\mathbf{B}}$$

$$3343 + 3114 = \boxed{\phantom{0000}} \rightarrow \boxed{\mathbf{Y}}$$

$$4617 + 4153 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{R}}$$

$$4486 + 2252 = \boxed{\phantom{0000}} \rightarrow \boxed{\mathbf{G}}$$

$$2725 + 2055 = \boxed{\phantom{0000}} \rightarrow \boxed{\text{U}}$$

$$1990 + 1511 = \boxed{\phantom{0000}} \rightarrow \boxed{\mathbf{E}}$$

$$1645 + 2500 = \boxed{\phantom{0000}} \rightarrow \boxed{\mathbf{S}}$$

Scratch space:

## CLUE 3

## Subtraction

The thief dropped some crayons. We take away the broken ones to see what is left!

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

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| T    |      |      | T    |      |      |      |      |      |      |      |      |      |      |      |
| 8510 | 4974 | 5991 | 8510 | 4974 | 8326 | 5991 | 5972 | 5164 | 1721 | 8326 | 1021 | 5164 | 1950 | 8324 |

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5972 | 3661 | 5991 | 5164 | 4974 | 1721 | 8771 | 3280 | 8015 | 7540 | 5991 | 7365 | 5972 | 1721 | 1950 | 1950 | 3661 | 5164 |

$8602 - 92 = \square \rightarrow \boxed{\text{T}}$

$9293 - 522 = \square \rightarrow \boxed{\text{Y}}$

$7891 - 2727 = \square \rightarrow \boxed{\text{S}}$

$10219 - 1895 = \square \rightarrow \boxed{\text{N}}$

$12013 - 3998 = \square \rightarrow \boxed{\text{A}}$

$4697 - 1036 = \square \rightarrow \boxed{\text{R}}$

$12539 - 4999 = \square \rightarrow \boxed{\text{X}}$

$9746 - 3755 = \square \rightarrow \boxed{\text{E}}$

$4409 - 2459 = \square \rightarrow \boxed{\text{O}}$

$9193 - 4219 = \square \rightarrow \boxed{\text{H}}$

$3767 - 2046 = \square \rightarrow \boxed{\text{L}}$

$7420 - 1448 = \square \rightarrow \boxed{\text{F}}$

$9170 - 1805 = \square \rightarrow \boxed{\text{D}}$

$7534 - 4254 = \square \rightarrow \boxed{\text{W}}$

$11232 - 2906 = \square \rightarrow \boxed{\text{I}}$

$4272 - 3251 = \square \rightarrow \boxed{\text{P}}$

Scratch space:

## CLUE 4

## Multiplication facts (1-12)

We see neat rows of clay pots. We multiply the rows to unlock the next secret!

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

|    |    |    |    |    |     |     |    |    |    |     |    |    |    |    |    |
|----|----|----|----|----|-----|-----|----|----|----|-----|----|----|----|----|----|
| W  |    |    |    |    |     |     |    |    |    |     |    |    |    |    |    |
| 35 | 25 | 2  | 11 | 63 | 40  | 132 | 77 | 24 | 55 | 121 | 64 | 5  | 70 | 63 | 25 |
|    |    |    |    |    |     |     |    |    |    |     |    |    |    |    |    |
| 77 | 28 | 16 | 56 | 40 | 132 | 77  | 11 | 40 | 28 | 99  | 25 | 77 | 28 | 56 | 28 |
|    |    |    |    |    |     |     |    |    |    |     |    |    |    |    |    |
|    |    |    |    |    |     |     |    |    |    |     |    |    |    |    |    |
|    |    |    |    |    |     |     |    |    |    |     |    |    |    |    |    |

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

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

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

$8 \times 2 = \square \rightarrow \boxed{\text{R}}$

$11 \times 1 = \square \rightarrow \boxed{\text{O}}$

$11 \times 5 = \square \rightarrow \boxed{\text{I}}$

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

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

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

$11 \times 11 = \square \rightarrow \boxed{\text{K}}$

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

$1 \times 5 = \square \rightarrow \boxed{\text{B}}$

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

$7 \times 10 = \square \rightarrow \boxed{\text{L}}$

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

$8 \times 7 = \square \rightarrow \boxed{\text{A}}$

$7 \times 11 = \square \rightarrow \boxed{\text{S}}$

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

Scratch space:

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

We must share the heavy keys equally among the guards. This math shows us 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:**

$10 \div 2 = \boxed{\phantom{00}}$

$36 \div 3 = \boxed{\phantom{00}}$

$12 \div 4 = \boxed{\phantom{00}}$

$36 \div 4 = \boxed{\phantom{00}}$

$40 \div 4 = \boxed{\phantom{00}}$

$4 \div 4 = \boxed{\phantom{00}}$

$44 \div 11 = \boxed{\phantom{00}}$

$70 \div 10 = \boxed{\phantom{00}}$

$60 \div 10 = \boxed{\phantom{00}}$

$8 \div 4 = \boxed{\phantom{00}}$

$64 \div 8 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain cuts the thick glass case, then dashes down the long museum hallway.
2. The villain paints a fake copy of the art, then dashes down the long museum hallway.
3. The villain sneaks past the sleepy night guards, then hides behind a giant marble statue.
4. The villain climbs down from the high skylight, then hides behind a giant marble statue.
5. The villain swipes the golden picture frame, then escapes into the dark sculpture room.
6. The villain paints a fake copy of the art, then escapes into the dark sculpture room.
7. The villain climbs down from the high skylight, then escapes into the dark sculpture room.
8. The villain swipes the golden picture frame, then slides under the laser security beams.
9. The villain paints a fake copy of the art, then runs out into the beautiful Paris night.
10. The villain swipes the golden picture frame, then hides behind a giant marble statue.
11. The villain climbs down from the high skylight, then slides under the laser security beams.
12. The villain cuts the thick glass case, then escapes into the dark sculpture room.

# Answer Key

## The Louvre Museum Mystery

### Culprit: Jean

Suction Cup Shoes · Glow Sketchbook · Wears dark glasses · Spiky Neon Blue · Slippery Floor Wax

Trail: Start 21 → Clue 1 20 → Clue 2 12 → Clue 3 5 → Clue 4 4 → Clue 5 1

### Clue 1 (Rounding): "THE THIEF DOES NOT WEAR THE SQUEAKY BERET"

Round 110 to the nearest ten = 110 (T) · Round 154 to the nearest hundred = 200 (D) · Round 16 to the nearest ten = 20 (S) · Round 495 to the nearest hundred = 500 (W) · Round 1,718 to the nearest hundred = 1700 (B) · Round 290 to the nearest hundred = 300 (Y) · Round 28 to the nearest ten = 30 (E) · Round 8,774 to the nearest thousand = 9000 (O) · Round 291 to the nearest ten = 290 (I) · Round 1,148 to the nearest hundred = 1100 (R) · Round 3,715 to the nearest hundred = 3700 (N) · Round 374 to the nearest ten = 370 (Q) · Round 6,785 to the nearest thousand = 7000 (K) · Round 1,297 to the nearest hundred = 1300 (F) · Round 171 to the nearest ten = 170 (U) · Round 2,405 to the nearest thousand = 2000 (H) · Round 941 to the nearest hundred = 900 (A)

### Clue 2 (Addition): "WE FOUND DARK SUNGLASSES BY THE EMPTY FRAME"

$1949 + 4083 = 6032$  (W) ·  $2266 + 3604 = 5870$  (O) ·  $1594 + 1898 = 3492$  (L) ·  $2598 + 4882 = 7480$  (K) ·  $4628 + 2054 = 6682$  (T) ·  $826 + 1469 = 2295$  (A) ·  $1193 + 850 = 2043$  (H) ·  $2943 + 4723 = 7666$  (P) ·  $3083 + 3851 = 6934$  (N) ·  $4240 + 2125 = 6365$  (F) ·  $3992 + 4163 = 8155$  (D) ·  $5014 + 3504 = 8518$  (M) ·  $2529 + 5270 = 7799$  (B) ·  $3343 + 3114 = 6457$  (Y) ·  $4617 + 4153 = 8770$  (R) ·  $4486 + 2252 = 6738$  (G) ·  $2725 + 2055 = 4780$  (U) ·  $1990 + 1511 = 3501$  (E) ·  $1645 + 2500 = 4145$  (S)

### Clue 3 (Subtraction): "THE THIEF SLIPS ON FRESHLY WAXED FLOORS"

$8602 - 92 = 8510$  (T) ·  $9293 - 522 = 8771$  (Y) ·  $7891 - 2727 = 5164$  (S) ·  $10219 - 1895 = 8324$  (N) ·  $12013 - 3998 = 8015$  (A) ·  $4697 - 1036 = 3661$  (R) ·  $12539 - 4999 = 7540$  (X) ·  $9746 - 3755 = 5991$  (E) ·  $4409 - 2459 = 1950$  (O) ·  $9193 - 4219 = 4974$  (H) ·  $3767 - 2046 = 1721$  (L) ·  $7420 - 1448 = 5972$  (F) ·  $9170 - 1805 = 7365$  (D) ·  $7534 - 4254 = 3280$  (W) ·  $11232 - 2906 = 8326$  (I) ·  $4272 - 3251 = 1021$  (P)

### Clue 4 (Multiplication facts (1-12)): "WE FOUND SPIKY BLUE STRANDS ON THE STATUE"

$5 \times 7 = 35$  (W) ·  $7 \times 9 = 63$  (U) ·  $12 \times 11 = 132$  (D) ·  $8 \times 2 = 16$  (R) ·  $11 \times 1 = 11$  (O) ·  $11 \times 5 = 55$  (I) ·  $2 \times 1 = 2$  (F) ·  $11 \times 9 = 99$  (H) ·  $10 \times 4 = 40$  (N) ·  $11 \times 11 = 121$  (K) ·  $4 \times 6 = 24$  (P) ·  $1 \times 5 = 5$  (B) ·  $8 \times 8 = 64$  (Y) ·  $7 \times 10 = 70$  (L) ·  $7 \times 4 = 28$  (T) ·  $8 \times 7 = 56$  (A) ·  $7 \times 11 = 77$  (S) ·  $5 \times 5 = 25$  (E)

### Clue 5 (Division facts (1-12)): surviving statement is box 11 → Jean

$10 \div 2 = 5$  ·  $36 \div 3 = 12$  ·  $12 \div 4 = 3$  ·  $36 \div 4 = 9$  ·  $40 \div 4 = 10$  ·  $4 \div 4 = 1$  ·  $44 \div 11 = 4$  ·  $70 \div 10 = 7$  ·  $60 \div 10 = 6$  ·  $8 \div 4 = 2$  ·  $64 \div 8 = 8$