



The Mystery of the Missing Golden Clock

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

Detective: _____ Date: _____

The Grand Timekeeper is in a huge panic! The legendary Golden Clock has vanished from the tower wall. Without its magic gears, the entire town will freeze in time. We must find the Clock Snatcher and get the clock back before the final bell chimes!

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 Clock Snatcher is _____

Possible suspects

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

NAME	TOOL	ESCAPE GEAR	MONOCLE SIDE	WIG COLOR	WEAKNESS
Eli Terry	Dial painter	Smoke bomb	Left eye monocle	Copper hair	Loud whistles
Edward Howard	Gear polisher	Smoke bomb	Left eye monocle	Golden hair	Strong magnets
Galileo Galilei	Dial painter	Smoke bomb	Left eye monocle	Golden hair	Strong magnets
George Graham	Glass cutter	Grappling hook	Left eye monocle	Golden hair	Loud whistles
Christiaan Huygens	Spring winder	Glider wings	Right eye monocle	Silver hair	Slippery grease
Jules Jurgensen	Gear polisher	Pocket laser	Left eye monocle	Silver hair	Strong magnets
Kintaro Hattori	Chime tuner	Glider wings	Left eye monocle	Copper hair	Strong magnets
Achille Ditesheim	Chime tuner	Glider wings	Left eye monocle	Copper hair	Loud whistles
Adrien Philippe	Chime tuner	Spring shoes	Right eye monocle	Copper hair	Slippery grease
Hans Wilsdorf	Chime tuner	Grappling hook	Left eye monocle	Golden hair	Strong magnets
Levi Hutchins	Spring winder	Glider wings	Left eye monocle	Golden hair	Strong magnets
Thomas Tompion	Dial painter	Glider wings	Left eye monocle	Golden hair	Strong magnets
Louis Cartier	Chime tuner	Grappling hook	Left eye monocle	Copper hair	Loud whistles
Peter Henlein	Glass cutter	Spring shoes	Right eye monocle	Golden hair	Strong magnets
John Harrison	Glass cutter	Grappling hook	Left eye monocle	Golden hair	Slippery grease
Antoni Patek	Glass cutter	Grappling hook	Left eye monocle	Golden hair	Strong magnets
Aaron Dennison	Glass cutter	Spring shoes	Left eye monocle	Copper hair	Loud whistles
Florentine Jones	Glass cutter	Pocket laser	Right eye monocle	Golden hair	Slippery grease
Abraham Breguet	Spring winder	Spring shoes	Left eye monocle	Silver hair	Slippery grease
Daniel Quare	Gear polisher	Smoke bomb	Right eye monocle	Copper hair	Strong magnets
Seth Thomas	Gear polisher	Smoke bomb	Left eye monocle	Silver hair	Slippery grease

CLUE 1 Multiplication facts (1-12)

We need to count the rows of spare brass gears left in the workshop to see if any are missing. Count the gears in each row to find the clue.

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

A number line from 0 to 100. The tens digit of the number is marked with a 'T' in an orange box. The numbers are: 42, 60, 21, 90, 25, 100, 42, 9, 60, 21, 88, 66, 80, 21, 90, 25, 80, 42.

$6 \times 7 = \boxed{} \rightarrow \boxed{\text{T}}$

$$3 \times 5 = \boxed{} \rightarrow \left[\begin{array}{c} \text{I} \\ \text{II} \\ \text{III} \end{array} \right]$$

$$3 \times 10 = \boxed{} \rightarrow \boxed{\text{L}}$$

$3 \times 3 = \square \rightarrow \boxed{\text{C}}$

$12 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{U}}$

$$5 \times 5 = \boxed{} \rightarrow \boxed{\mathbf{N}}$$

$10 \times 8 = \boxed{} \rightarrow \boxed{0}$

$7 \times 7 = \boxed{} \rightarrow \mathbf{G}$

$$11 \times 8 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$10 \times 9 = \boxed{} \rightarrow \boxed{\text{S}}$$

$5 \times 12 = \boxed{} \rightarrow \boxed{\text{H}}$

$11 \times 6 = \square \rightarrow \mathbf{D}$

$10 \times 10 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$3 \times 7 = \square \rightarrow \boxed{\mathbf{E}}$

$8 \times 2 = \square \rightarrow \boxed{W}$

Scratch space:

CLUE 2

The tower radar tool is slightly broken and only displays rounded numbers. Round the distance to the runaway suspect to get our next lead.

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

The diagram consists of two rows of boxes. Each box contains a number, and some boxes are highlighted with an orange background and a large orange letter 'T'.

Row 1 (top):

- Box 1: 1100 (highlighted with 'T')
- Box 2: 290
- Box 3: 430
- Box 4: 900
- Box 5: 700
- Box 6: 1100 (highlighted with 'T')
- Box 7: 3000
- Box 8: 430
- Box 9: 2300
- Box 10: 2300
- Box 11: 2300
- Box 12: 5000
- Box 13: 900
- Box 14: 5000

Row 2 (bottom):

- Box 1: 4300
- Box 2: 370
- Box 3: 3000
- Box 4: 370
- Box 5: 200
- Box 6: 3700
- Box 7: 430
- Box 8: 370
- Box 9: 3000
- Box 10: 1100 (highlighted with 'T')
- Box 11: 290
- Box 12: 430
- Box 13: 3700
- Box 14: 430
- Box 15: 20
- Box 16: 1100 (highlighted with 'T')
- Box 17: 430
- Box 18: 2000
- Box 19: 430

Round 1,054 to the nearest hundred $\rightarrow$ **T**

Round 2,017 to the nearest thousand $\rightarrow$ **Y**

Round 3,749 to the nearest hundred $\rightarrow$ **L**

Round 429 to the nearest ten $\rightarrow$ **E**

Round 2,764 to the nearest thousand $\rightarrow$ **N**

Round 207 to the nearest hundred $\rightarrow$ **C**

Round 865 to the nearest hundred $\rightarrow$ **W**

Round 2,282 to the nearest hundred $\rightarrow$ **S**

Round 24 to the nearest ten $\rightarrow$ **F**

Round 700 to the nearest hundred $\rightarrow$

Round 372 to the nearest ten $\rightarrow$

Round 4,322 to the nearest hundred → **M**

Round 4,586 to the nearest thousand → **A**

Round 293 to the nearest ten $\rightarrow$ **H**

Scratch space:

CLUE 3 Addition

Let us add up the total weight of the bronze pendulum weights left behind by the thief to see how heavy their bag was.

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

W												W				
3641	6512	2380	5972	6078	5990	7373	3787	6472	7373	6642	6512	3532	3641	3967	7373	6642

5990	7373	6641	3787	6078	3868	3532	5972	3868	6078	6512	7373	5990

$1846 + 1795 = \boxed{} \rightarrow \boxed{\text{W}}$

$4526 + 2115 = \boxed{} \rightarrow \boxed{\text{R}}$

$2322 + 1645 = \boxed{} \rightarrow \boxed{\text{I}}$

$2256 + 1612 = \boxed{} \rightarrow \boxed{\text{G}}$

$2199 + 3773 = \boxed{} \rightarrow \boxed{\text{A}}$

$1410 + 970 = \boxed{} \rightarrow \boxed{\text{C}}$

$3275 + 4098 = \boxed{} \rightarrow \boxed{\text{T}}$

$2559 + 3913 = \boxed{} \rightarrow \boxed{\text{P}}$

$3568 + 2510 = \boxed{} \rightarrow \boxed{\text{N}}$

$1232 + 2555 = \boxed{} \rightarrow \boxed{\text{O}}$

$2531 + 3981 = \boxed{} \rightarrow \boxed{\text{E}}$

$4066 + 2576 = \boxed{} \rightarrow \boxed{\text{H}}$

$3528 + 2462 = \boxed{} \rightarrow \boxed{\text{S}}$

$1970 + 1562 = \boxed{} \rightarrow \boxed{\text{M}}$

Scratch space:

CLUE 4

Subtraction

The thief dropped a bag of silver screws. We must subtract the damaged screws from the total to find the clean ones left behind.

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

W									W										
5236	5306	4783	4937	8243	6253	4955	5233	6053	4937	5236	4587	6253	5233	5233	4937	6053	4955	5306	6253
2096	6121	4587	8235	4937	6253	6663	2096	5306	4955	4587	6121	6053							

$8056 - 2820 = \square \rightarrow \text{W}$

$8804 - 2141 = \square \rightarrow \text{T}$

$7567 - 1514 = \square \rightarrow \text{L}$

$7941 - 3354 = \square \rightarrow \text{I}$

$6913 - 2130 = \square \rightarrow \text{F}$

$9516 - 3263 = \square \rightarrow \text{N}$

$9812 - 1569 = \square \rightarrow \text{U}$

$9161 - 3855 = \square \rightarrow \text{E}$

$10674 - 2439 = \square \rightarrow \text{R}$

$5678 - 741 = \square \rightarrow \text{O}$

$9571 - 3450 = \square \rightarrow \text{A}$

$7886 - 2931 = \square \rightarrow \text{D}$

$5989 - 756 = \square \rightarrow \text{G}$

$4330 - 2234 = \square \rightarrow \text{H}$

Scratch space:

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

We need to split our search teams evenly among the different rooms of the clock tower. Divide the apprentices to start the search.

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:

$5 \div 1 = \boxed{}$

$40 \div 4 = \boxed{}$

$5 \div 5 = \boxed{}$

$144 \div 12 = \boxed{}$

$11 \div 1 = \boxed{}$

$7 \div 1 = \boxed{}$

$12 \div 2 = \boxed{}$

$72 \div 8 = \boxed{}$

$40 \div 10 = \boxed{}$

$8 \div 1 = \boxed{}$

$6 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain unlocked the main gear box, then escaped down the long bell rope.
2. The villain loosened the grand pendulum, then slipped through the narrow gear gate.
3. The villain took the mainspring of the clock, then escaped down the long bell rope.
4. The villain took the mainspring of the clock, then slid down the giant clock face.
5. The villain took the mainspring of the clock, then slipped through the narrow gear gate.
6. The villain cracked the face of the clock, then slipped through the narrow gear gate.
7. The villain stole the glowing clock hands, then slipped through the narrow gear gate.
8. The villain unlocked the main gear box, then slid down the giant clock face.
9. The villain loosened the grand pendulum, then slid down the giant clock face.
10. The villain cracked the face of the clock, then escaped down the long bell rope.
11. The villain loosened the grand pendulum, then fled into the dark copper mines.
12. The villain cracked the face of the clock, then fled into the dark copper mines.

Answer Key

The Mystery of the Missing Golden Clock

Culprit: Antoni Patek

Glass cutter · Grappling hook · Left eye monocle · Golden hair · Strong magnets

Trail: Start 21 → Clue 1 16 → Clue 2 12 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE SNATCHER DOES NOT USE GLIDER WINGS"

$6 \times 7 = 42$ (T) · $3 \times 5 = 15$ (I) · $3 \times 10 = 30$ (L) · $3 \times 3 = 9$ (C) · $12 \times 11 = 132$ (U) · $5 \times 5 = 25$ (N) · $10 \times 8 = 80$ (O) · $7 \times 7 = 49$ (G) · $11 \times 8 = 88$ (R) · $10 \times 9 = 90$ (S) · $5 \times 12 = 60$ (H) · $11 \times 6 = 66$ (D) · $10 \times 10 = 100$ (A) · $3 \times 7 = 21$ (E) · $8 \times 2 = 16$ (W)

Clue 2 (Rounding): "THE WITNESS SAW A MONOCLE ON THE LEFT EYE"

Round 1,054 to the nearest hundred = 1100 (T) · Round 2,017 to the nearest thousand = 2000 (Y) · Round 3,749 to the nearest hundred = 3700 (L) · Round 429 to the nearest ten = 430 (E) · Round 2,764 to the nearest thousand = 3000 (N) · Round 207 to the nearest hundred = 200 (C) · Round 865 to the nearest hundred = 900 (W) · Round 2,282 to the nearest hundred = 2300 (S) · Round 24 to the nearest ten = 20 (F) · Round 700 to the nearest hundred = 700 (I) · Round 372 to the nearest ten = 370 (O) · Round 4,322 to the nearest hundred = 4300 (M) · Round 4,586 to the nearest thousand = 5000 (A) · Round 293 to the nearest ten = 290 (H)

Clue 3 (Addition): "WE CAN STOP THEM WITH STRONG MAGNETS"

$1846 + 1795 = 3641$ (W) · $4526 + 2115 = 6641$ (R) · $2322 + 1645 = 3967$ (I) · $2256 + 1612 = 3868$ (G) · $2199 + 3773 = 5972$ (A) · $1410 + 970 = 2380$ (C) · $3275 + 4098 = 7373$ (T) · $2559 + 3913 = 6472$ (P) · $3568 + 2510 = 6078$ (N) · $1232 + 2555 = 3787$ (O) · $2531 + 3981 = 6512$ (E) · $4066 + 2576 = 6642$ (H) · $3528 + 2462 = 5990$ (S) · $1970 + 1562 = 3532$ (M)

Clue 4 (Subtraction): "WE FOUND GLOWING GOLDEN HAIR ON THE DIAL"

$8056 - 2820 = 5236$ (W) · $8804 - 2141 = 6663$ (T) · $7567 - 1514 = 6053$ (L) · $7941 - 3354 = 4587$ (I) · $6913 - 2130 = 4783$ (F) · $9516 - 3263 = 6253$ (N) · $9812 - 1569 = 8243$ (U) · $9161 - 3855 = 5306$ (E) · $10674 - 2439 = 8235$ (R) · $5678 - 741 = 4937$ (O) · $9571 - 3450 = 6121$ (A) · $7886 - 2931 = 4955$ (D) · $5989 - 756 = 5233$ (G) · $4330 - 2234 = 2096$ (H)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Antoni Patek

$5 \div 1 = 5$ · $40 \div 4 = 10$ · $5 \div 5 = 1$ · $144 \div 12 = 12$ · $11 \div 1 = 11$ · $7 \div 1 = 7$ · $12 \div 2 = 6$ · $72 \div 8 = 9$ · $40 \div 10 = 4$ · $8 \div 1 = 8$ · $6 \div 2 = 3$