The Great Map Mystery

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

Detective: _____ **Date:** _____

The priceless Golden Globe has vanished from the Compass City Map Museum! The thief left behind strange grid coordinates and expedition clues. Detective, use your geography skills to solve the mystery and stop the Map Snatcher!

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 Map Snatcher is _____

Possible suspects

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

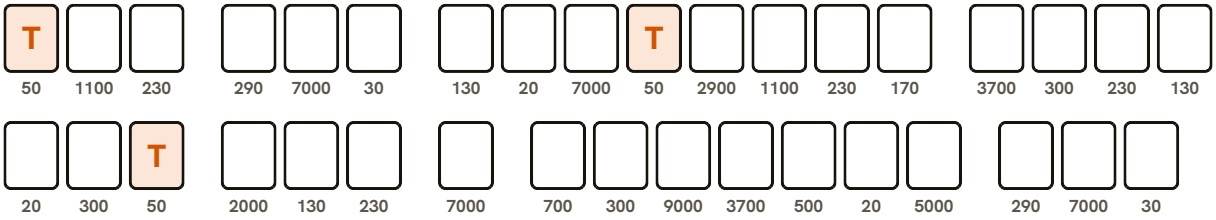
NAME	MAP SKILL	TRAVEL GEAR	COMPASS GRIP	EXPLORER HAT	GEOGRAPHIC FLAW
Alexander Humboldt	Latitude Tracking	Pocket Altimeter	Holds compass in right hand	Wool Beanie	Fear of Canyons
Ibn Battuta	Latitude Tracking	Folding Map	Holds compass in right hand	Wool Beanie	Confused by Equator
Barbara Washburn	Contour Drawing	Leather Backpack	Holds compass in right hand	Pith Helmet	Fear of Canyons
Jeanne Baret	Compass Navigation	Pocket Altimeter	Holds compass in right hand	Safari Cap	Fear of Canyons
Mary Anning	Compass Navigation	Brass Quadrant	Holds compass in right hand	Pith Helmet	Fear of Canyons
Amerigo Vespucci	Topography Reading	Field Telescope	Holds compass in left hand	Wool Beanie	Fear of Canyons
Jacques Cousteau	Contour Drawing	Field Telescope	Holds compass in right hand	Pith Helmet	Fear of Canyons
David Livingstone	Compass Navigation	Leather Backpack	Holds compass in right hand	Pith Helmet	Lost in Deserts
Ranulph Fiennes	Latitude Tracking	Brass Quadrant	Holds compass in right hand	Wool Beanie	Fear of Canyons
Isabella Bird	Compass Navigation	Pocket Altimeter	Holds compass in left hand	Safari Cap	Confused by Equator
Robert Peary	Compass Navigation	Folding Map	Holds compass in left hand	Safari Cap	Fear of Canyons
Matthew Henson	Topography Reading	Leather Backpack	Holds compass in left hand	Pith Helmet	Fear of Canyons
Roald Amundsen	Compass Navigation	Field Telescope	Holds compass in left hand	Wool Beanie	Fear of Canyons
Leif Erikson	Latitude Tracking	Leather Backpack	Holds compass in right hand	Pith Helmet	Confused by Equator
Gertrude Bell	Climate Analysis	Field Telescope	Holds compass in left hand	Pith Helmet	Lost in Deserts
Freya Stark	Latitude Tracking	Brass Quadrant	Holds compass in right hand	Safari Cap	Lost in Deserts
Mary Kingsley	Topography Reading	Folding Map	Holds compass in right hand	Pith Helmet	Fear of Canyons
Nellie Bly	Contour Drawing	Brass Quadrant	Holds compass in left hand	Wool Beanie	Confused by Equator
Sacagawea	Latitude Tracking	Pocket Altimeter	Holds compass in right hand	Pith Helmet	Fear of Canyons
Ernest Shackleton	Contour Drawing	Folding Map	Holds compass in left hand	Safari Cap	Confused by Equator
James Cook	Latitude Tracking	Brass Quadrant	Holds compass in right hand	Safari Cap	Fear of Canyons

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CLUE 1 Rounding

The digital GPS readout in the museum vault rounded the distance traveled to the nearest thousand miles.

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



Round 52 to the nearest ten ☐ → T

Round 489 to the nearest hundred ☐ → I

Round 8,935 to the nearest thousand ☐ → L

Round 6,519 to the nearest thousand ☐ → A

Round 29 to the nearest ten ☐ → P

Round 2,913 to the nearest hundred ☐ → C

Round 1,117 to the nearest hundred ☐ → H

Round 3,697 to the nearest hundred ☐ → D

Round 5,344 to the nearest thousand ☐ → G

Round 300 to the nearest hundred ☐ → O

Round 2,113 to the nearest thousand ☐ → U

Round 698 to the nearest hundred ☐ → F

Round 19 to the nearest ten ☐ → N

Round 233 to the nearest ten ☐ → E

Round 292 to the nearest ten ☐ → M

Round 168 to the nearest ten ☐ → R

Round 129 to the nearest ten ☐ → S

Scratch space:

CLUE 2 Addition

> The museum curator added up all the stolen travel journals from the east and west wings to check the total count.

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



2185 + 4170 = ☐ → T	1119 + 2071 = ☐ → M	1221 + 2640 = ☐ → G
1186 + 1495 = ☐ → I	4006 + 5208 = ☐ → D	2744 + 1780 = ☐ → E
1272 + 1272 = ☐ → N	1288 + 2223 = ☐ → W	2712 + 5395 = ☐ → S
2975 + 4506 = ☐ → P	2433 + 2161 = ☐ → A	1894 + 3497 = ☐ → O
4743 + 2643 = ☐ → C	2239 + 4371 = ☐ → K	2882 + 3149 = ☐ → H
4067 + 2166 = ☐ → R		

Scratch space:

CLUE 3 Subtraction

The detective subtracted the remaining map scrolls from the morning inventory to see how many were taken.

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



10446 - 4597 = ☐ → T

6094 - 4043 = ☐ → D

5557 - 1753 = ☐ → A

2560 - 6 = ☐ → H

8698 - 1845 = ☐ → E

6544 - 4626 = ☐ → C

11943 - 3628 = ☐ → K

4847 - 1291 = ☐ → O

9770 - 2930 = ☐ → W

2195 - 1090 = ☐ → F

8372 - 4955 = ☐ → G

4883 - 2836 = ☐ → R

5983 - 2709 = ☐ → I

4107 - 167 = ☐ → Y

9826 - 1394 = ☐ → S

10011 - 4385 = ☐ → N

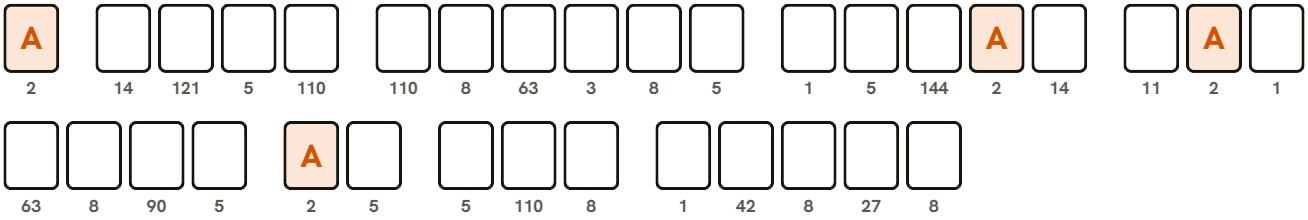
9690 - 3298 = ☐ → P

Scratch space:

CLUE 4 Multiplication facts (1-12)

> The thief left behind identical stacks of atlas pages arranged in neat rows across the exhibition room floor.

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



- 2 × 1 = ☐ → **A**
- 10 × 9 = ☐ → **F**
- 12 × 12 = ☐ → **R**
- 7 × 9 = ☐ → **L**
- 10 × 11 = ☐ → **H**
- 7 × 6 = ☐ → **C**
- 3 × 9 = ☐ → **N**
- 11 × 11 = ☐ → **I**
- 1 × 8 = ☐ → **E**
- 11 × 1 = ☐ → **W**
- 1 × 5 = ☐ → **T**
- 1 × 1 = ☐ → **S**
- 1 × 3 = ☐ → **M**
- 2 × 7 = ☐ → **P**

Scratch space:

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

> The investigation team divided the expedition search grid into equal zones for each rescue squad.

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:

9 ÷ 9 = ☐	96 ÷ 12 = ☐	18 ÷ 3 = ☐	50 ÷ 10 = ☐	132 ÷ 11 = ☐
18 ÷ 2 = ☐	20 ÷ 10 = ☐	33 ÷ 11 = ☐	7 ÷ 1 = ☐	8 ÷ 2 = ☐
88 ÷ 8 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain plotted grid coordinates, then focused a field telescope.
2. The villain aligned the magnetic compass, then focused a field telescope.
3. The villain calculated mountain heights, then packed a leather backpack.
4. The villain traced contour lines on the floor, then checked a pocket altimeter.
5. The villain calculated mountain heights, then adjusted a brass quadrant.
6. The villain aligned the magnetic compass, then adjusted a brass quadrant.
7. The villain calculated mountain heights, then focused a field telescope.
8. The villain plotted grid coordinates, then packed a leather backpack.
9. The villain aligned the magnetic compass, then checked a pocket altimeter.
10. The villain checked latitude marks on the wall, then checked a pocket altimeter.
11. The villain plotted grid coordinates, then adjusted a brass quadrant.
12. The villain plotted grid coordinates, then checked a pocket altimeter.

TEACHER / PARENT

Answer Key

The Great Map Mystery

Culprit: Sacagawea

Latitude Tracking · Pocket Altimeter · Holds compass in right hand · Pith Helmet · Fear of Canyons

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE MAP SNATCHER DOES NOT USE A FOLDING MAP"

Round 52 to the nearest ten = 50 (T) · Round 489 to the nearest hundred = 500 (I) · Round 8,935 to the nearest thousand = 9000 (L) · Round 6,519 to the nearest thousand = 7000 (A) · Round 29 to the nearest ten = 30 (P) · Round 2,913 to the nearest hundred = 2900 (C) · Round 1,117 to the nearest hundred = 1100 (H) · Round 3,697 to the nearest hundred = 3700 (D) · Round 5,344 to the nearest thousand = 5000 (G) · Round 300 to the nearest hundred = 300 (O) · Round 2,113 to the nearest thousand = 2000 (U) · Round 698 to the nearest hundred = 700 (F) · Round 19 to the nearest ten = 20 (N) · Round 233 to the nearest ten = 230 (E) · Round 292 to the nearest ten = 290 (M) · Round 168 to the nearest ten = 170 (R) · Round 129 to the nearest ten = 130 (S)

Clue 2 (Addition): "THE TRACKS SHOW A RIGHT HANDED COMPASS GRIP"

2185 + 4170 = 6355 (T) · 1119 + 2071 = 3190 (M) · 1221 + 2640 = 3861 (G) · 1186 + 1495 = 2681 (I) · 4006 + 5208 = 9214 (D) · 2744 + 1780 = 4524 (E) · 1272 + 1272 = 2544 (N) · 1288 + 2223 = 3511 (W) · 2712 + 5395 = 8107 (S) · 2975 + 4506 = 7481 (P) · 2433 + 2161 = 4594 (A) · 1894 + 3497 = 5391 (O) · 4743 + 2643 = 7386 (C) · 2239 + 4371 = 6610 (K) · 2882 + 3149 = 6031 (H) · 4067 + 2166 = 6233 (R)

Clue 3 (Subtraction): "THE THIEF PANICKED WHEN NEARING DEEP CANYONS"

10446 - 4597 = 5849 (T) · 6094 - 4043 = 2051 (D) · 5557 - 1753 = 3804 (A) · 2560 - 6 = 2554 (H) · 8698 - 1845 = 6853 (E) · 6544 - 4626 = 1918 (C) · 11943 - 3628 = 8315 (K) · 4847 - 1291 = 3556 (O) · 9770 - 2930 = 6840 (W) · 2195 - 1090 = 1105 (F) · 8372 - 4955 = 3417 (G) · 4883 - 2836 = 2047 (R) · 5983 - 2709 = 3274 (I) · 4107 - 167 = 3940 (Y) · 9826 - 1394 = 8432 (S) · 10011 - 4385 = 5626 (N) · 9690 - 3298 = 6392 (P)

Clue 4 (Multiplication facts (1-12)): "A PITH HELMET STRAP WAS LEFT AT THE SCENE"

2 × 1 = 2 (A) · 10 × 9 = 90 (F) · 12 × 12 = 144 (R) · 7 × 9 = 63 (L) · 10 × 11 = 110 (H) · 7 × 6 = 42 (C) · 3 × 9 = 27 (N) · 11 × 11 = 121 (I) · 1 × 8 = 8 (E) · 11 × 1 = 11 (W) · 1 × 5 = 5 (T) · 1 × 1 = 1 (S) · 1 × 3 = 3 (M) · 2 × 7 = 14 (P)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Sacagawea

9 ÷ 9 = 1 · 96 ÷ 12 = 8 · 18 ÷ 3 = 6 · 50 ÷ 10 = 5 · 132 ÷ 11 = 12 · 18 ÷ 2 = 9 · 20 ÷ 10 = 2 · 33 ÷ 11 = 3 · 7 ÷ 1 = 7 · 8 ÷ 2 = 4 · 88 ÷ 8 = 11