



The Great Globe Glitch

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

Detective: _____ **Date:** _____

The magic globe in the Map Archive has been scrambled! Rivers are running backward and mountains have swapped places with swamps. We need to track down the Map Morpher and fix the world before geography class starts!

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 Morpher is _____

Possible suspects

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

NAME	ELEMENTAL GEOGRAPHY GEAR	TRAVEL ABILITY	COMPASS GRIP	GEOGRAPHICAL HAIR STYLE	NATURE BARRIER
Jeanne Baret	Tectonic Shifting	Cave Tunneling	Holds compass left handed	Sandy blonde hair	Magnetized iron ore
Ranulph Fiennes	Glacier Freezing	Space Satellites	Holds compass right handed	Sandy blonde hair	High humidity mist
Robert Peary	Compass Magnetism	Jungle Blending	Holds compass left handed	Sandy blonde hair	Magnetized iron ore
Vasco da Gama	Volcano Summoning	Altitude Flight	Holds compass right handed	Ocean blue hair	Shady canopy trees
Marco Polo	Glacier Freezing	Altitude Flight	Holds compass left handed	Forest green hair	High humidity mist
Sacagawea	Desert Sandstorms	Cave Tunneling	Holds compass left handed	Ocean blue hair	Magnetized iron ore
James Cook	Volcano Summoning	Jungle Blending	Holds compass left handed	Ocean blue hair	Shady canopy trees
Amelia Earhart	Volcano Summoning	Cave Tunneling	Holds compass right handed	Sandy blonde hair	Magnetized iron ore
Ferdinand Magellan	Glacier Freezing	Deep Sea Diving	Holds compass right handed	Forest green hair	Magnetized iron ore
Sally Ride	Volcano Summoning	Cave Tunneling	Holds compass left handed	Sandy blonde hair	High humidity mist
Harriet Tubman	Glacier Freezing	Space Satellites	Holds compass right handed	Sandy blonde hair	Shady canopy trees
David Livingstone	Glacier Freezing	Jungle Blending	Holds compass left handed	Ocean blue hair	Shady canopy trees
Ibn Battuta	Tectonic Shifting	Jungle Blending	Holds compass left handed	Sandy blonde hair	Magnetized iron ore
Roald Amundsen	Glacier Freezing	Altitude Flight	Holds compass right handed	Forest green hair	Shady canopy trees
George Everest	Glacier Freezing	Jungle Blending	Holds compass left handed	Sandy blonde hair	Magnetized iron ore
Junko Tabei	Volcano Summoning	Cave Tunneling	Holds compass right handed	Forest green hair	Shady canopy trees
Mary Kingsley	Compass Magnetism	Space Satellites	Holds compass left handed	Sandy blonde hair	Magnetized iron ore
Gertrude Bell	Desert Sandstorms	Altitude Flight	Holds compass right handed	Sandy blonde hair	Magnetized iron ore
Isabella Bird	Compass Magnetism	Cave Tunneling	Holds compass left handed	Ocean blue hair	High humidity mist
Alexander Humboldt	Glacier Freezing	Cave Tunneling	Holds compass left handed	Forest green hair	High humidity mist
Amerigo Vespucci	Desert Sandstorms	Deep Sea Diving	Holds compass right handed	Sandy blonde hair	Magnetized iron ore

CLUE 1
Multiplication facts (1-12)

We pack our map cases in neat rows to search the archive. If we count the cases in each row, we can unlock the first clue.

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

T			T						T										
22	50	90	22	42	30	108	90	22	5	42	33	80	84	84	15	42	33	90	

		T					T		
84	42	22	90	5	5	20	22	90	84

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

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

$6 \times 7 = \square \rightarrow \boxed{\text{A}}$

$5 \times 3 = \square \rightarrow \boxed{\text{P}}$

$12 \times 9 = \square \rightarrow \boxed{\text{G}}$

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

$10 \times 3 = \square \rightarrow \boxed{\text{R}}$

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

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

$12 \times 7 = \square \rightarrow \boxed{\text{S}}$

$5 \times 10 = \square \rightarrow \boxed{\text{H}}$

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

Scratch space:

CLUE 2 Addition

To find the suspect, we must tally up the total number of flags collected from the northern and southern hemispheres.

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

T																		
383	220	469	513	676	798	711	343	622	622	910	343	622	220	469	487	571	723	323

T						T				
383	220	469	487	469	927	383	220	343	323	571

$175 + 208 = \square \rightarrow$ T	$233 + 389 = \square \rightarrow$ S	$167 + 156 = \square \rightarrow$ N
$88 + 132 = \square \rightarrow$ H	$307 + 369 = \square \rightarrow$ O	$426 + 297 = \square \rightarrow$ I
$615 + 295 = \square \rightarrow$ W	$387 + 540 = \square \rightarrow$ F	$187 + 384 = \square \rightarrow$ D
$374 + 337 = \square \rightarrow$ P	$176 + 311 = \square \rightarrow$ L	$303 + 166 = \square \rightarrow$ E
$256 + 257 = \square \rightarrow$ C	$333 + 465 = \square \rightarrow$ M	$164 + 179 = \square \rightarrow$ A

Scratch space:

CLUE 3 Rounding

The altitude radar only shows rounded numbers on its screen. We must round the mountain heights to read the secret message.

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

M																
80	8000	9000	2000	7000	5000	30	600	30	800	20	2000	20	800	7000		
400	5000	20	4000	4000	7000	900	5000	300	7000	200	30	90	90	8000	30	2000

Round 77 to the nearest ten → **M**

Round 763 to the nearest hundred → **R**

Round 19 to the nearest ten → **O**

Round 393 to the nearest hundred → **S**

Round 4,148 to the nearest thousand → **P**

Round 8,531 to the nearest thousand → **G**

Round 863 to the nearest hundred → **D**

Round 585 to the nearest hundred → **C**

Round 279 to the nearest hundred → **H**

Round 7,395 to the nearest thousand → **E**

Round 4,968 to the nearest thousand → **T**

Round 91 to the nearest ten → **L**

Round 237 to the nearest hundred → **V**

Round 1,721 to the nearest thousand → **N**

Round 31 to the nearest ten → **I**

Round 7,983 to the nearest thousand → **A**

Scratch space:

CLUE 4

Subtraction

A heavy wind blew some page markers off our globe. We need to subtract the lost markers to find the next lead.

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

S												S						S
168	646	551	595	360	531	594	193	551	595	307	168	401	588	646	551	595	168	
149	307	588	307	594	307	699	401	531	307	596	504	551	595					

$183 - 15 = \square \rightarrow \boxed{\text{S}}$

$850 - 319 = \square \rightarrow \boxed{\text{B}}$

$885 - 334 = \square \rightarrow \boxed{\text{N}}$

$794 - 148 = \square \rightarrow \boxed{\text{A}}$

$890 - 294 = \square \rightarrow \boxed{\text{H}}$

$315 - 122 = \square \rightarrow \boxed{\text{O}}$

$985 - 286 = \square \rightarrow \boxed{\text{F}}$

$424 - 64 = \square \rightarrow \boxed{\text{Y}}$

$818 - 224 = \square \rightarrow \boxed{\text{L}}$

$571 - 264 = \square \rightarrow \boxed{\text{E}}$

$362 - 213 = \square \rightarrow \boxed{\text{W}}$

$561 - 57 = \square \rightarrow \boxed{\text{I}}$

$620 - 219 = \square \rightarrow \boxed{\text{T}}$

$638 - 43 = \square \rightarrow \boxed{\text{D}}$

$646 - 58 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

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

Let's divide our team of young geographers equally among the search zones to decode the final 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:

$9 \div 9 = \boxed{}$

$25 \div 5 = \boxed{}$

$80 \div 8 = \boxed{}$

$33 \div 11 = \boxed{}$

$6 \div 3 = \boxed{}$

$48 \div 4 = \boxed{}$

$8 \div 1 = \boxed{}$

$22 \div 2 = \boxed{}$

$32 \div 8 = \boxed{}$

$42 \div 7 = \boxed{}$

$77 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain uses compass magnetism to spin the coordinates, then hides away using jungle blending.
2. The villain uses compass magnetism to spin the coordinates, then soars high with altitude flight.
3. The villain uses compass magnetism to spin the coordinates, then escapes with deep sea diving gear.
4. The villain summons a tiny backyard volcano, then digs deep using cave tunneling.
5. The villain freezes the rivers into mini glaciers, then hides away using jungle blending.
6. The villain blows desert sandstorms over the plains, then hides away using jungle blending.
7. The villain freezes the rivers into mini glaciers, then tracks targets with space satellites.
8. The villain blows desert sandstorms over the plains, then escapes with deep sea diving gear.
9. The villain shifts tectonic plates to make hills, then hides away using jungle blending.
10. The villain shifts tectonic plates to make hills, then digs deep using cave tunneling.
11. The villain shifts tectonic plates to make hills, then tracks targets with space satellites.
12. The villain blows desert sandstorms over the plains, then soars high with altitude flight.

Answer Key

The Great Globe Glitch

Culprit: Ibn Battuta

Tectonic Shifting · Jungle Blending · Holds compass left handed · Sandy blonde hair · Magnetized iron ore

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE TARGET LACKS SPACE SATELLITES"

$2 \times 11 = 22$ (T) · $1 \times 5 = 5$ (L) · $6 \times 7 = 42$ (A) · $5 \times 3 = 15$ (P) · $12 \times 9 = 108$ (G) · $4 \times 5 = 20$ (I) · $10 \times 3 = 30$ (R) · $10 \times 8 = 80$ (K) · $10 \times 9 = 90$ (E) · $12 \times 7 = 84$ (S) · $5 \times 10 = 50$ (H) · $11 \times 3 = 33$ (C)

Clue 2 (Addition): "THE COMPASS WAS HELD IN THE LEFT HAND"

$175 + 208 = 383$ (T) · $233 + 389 = 622$ (S) · $167 + 156 = 323$ (N) · $88 + 132 = 220$ (H) · $307 + 369 = 676$ (O) · $426 + 297 = 723$ (I) · $615 + 295 = 910$ (W) · $387 + 540 = 927$ (F) · $187 + 384 = 571$ (D) · $374 + 337 = 711$ (P) · $176 + 311 = 487$ (L) · $303 + 166 = 469$ (E) · $256 + 257 = 513$ (C) · $333 + 465 = 798$ (M) · $164 + 179 = 343$ (A)

Clue 3 (Rounding): "MAGNETIC IRON ORE STOPPED THE VILLAIN"

Round 77 to the nearest ten = 80 (M) · Round 763 to the nearest hundred = 800 (R) · Round 19 to the nearest ten = 20 (O) · Round 393 to the nearest hundred = 400 (S) · Round 4,148 to the nearest thousand = 4000 (P) · Round 8,531 to the nearest thousand = 9000 (G) · Round 863 to the nearest hundred = 900 (D) · Round 585 to the nearest hundred = 600 (C) · Round 279 to the nearest hundred = 300 (H) · Round 7,395 to the nearest thousand = 7000 (E) · Round 4,968 to the nearest thousand = 5000 (T) · Round 91 to the nearest ten = 90 (L) · Round 237 to the nearest hundred = 200 (V) · Round 1,721 to the nearest thousand = 2000 (N) · Round 31 to the nearest ten = 30 (I) · Round 7,983 to the nearest thousand = 8000 (A)

Clue 4 (Subtraction): "SANDY BLONDE STRANDS WERE LEFT BEHIND"

$183 - 15 = 168$ (S) · $850 - 319 = 531$ (B) · $885 - 334 = 551$ (N) · $794 - 148 = 646$ (A) · $890 - 294 = 596$ (H) · $315 - 122 = 193$ (O) · $985 - 286 = 699$ (F) · $424 - 64 = 360$ (Y) · $818 - 224 = 594$ (L) · $571 - 264 = 307$ (E) · $362 - 213 = 149$ (W) · $561 - 57 = 504$ (I) · $620 - 219 = 401$ (T) · $638 - 43 = 595$ (D) · $646 - 58 = 588$ (R)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Ibn Battuta

$9 \div 9 = 1$ · $25 \div 5 = 5$ · $80 \div 8 = 10$ · $33 \div 11 = 3$ · $6 \div 3 = 2$ · $48 \div 4 = 12$ · $8 \div 1 = 8$ · $22 \div 2 = 11$ · $32 \div 8 = 4$ · $42 \div 7 = 6$ · $77 \div 11 = 7$