



Mystery of the Skyland Map

Grade 6 math · Multiplication, Addition, Subtraction, Place value, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

A sneaky sky pirate has stolen the Golden Compass from the Sky Academy. The Chief Cartographer needs your help to track down the thief among the visiting airship captains!

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 sky pirate is _____

Possible suspects

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

NAME	NAVIGATION GEAR	AIRSHIP GADGET	STEERING HAND	HAIR COLOR	FEAR
James Cook	Silver Chronometer	Smoke Screen	Right handed compass user	Fiery Red hair	Fear of rust
Zheng He	Solar Astrolabe	Smoke Screen	Right handed compass user	Fiery Red hair	Fear of heights
Amelia Earhart	Brass Spyglass	Glider Wings	Right handed compass user	Sandy Blonde hair	Fear of heights
Marco Polo	Silver Chronometer	Steam Booster	Left handed compass user	Dark Raven hair	Fear of lightning
Roald Amundsen	Solar Astrolabe	Smoke Screen	Left handed compass user	Dark Raven hair	Fear of rust
Leif Erikson	Steam Barometer	Harpoon Gun	Right handed compass user	Dark Raven hair	Fear of rust
Jacques Cousteau	Golden Sextant	Steam Booster	Left handed compass user	Sandy Blonde hair	Fear of heights
Henry Hudson	Brass Spyglass	Glider Wings	Right handed compass user	Sandy Blonde hair	Fear of lightning
Ferdinand Magellan	Steam Barometer	Smoke Screen	Right handed compass user	Sandy Blonde hair	Fear of heights
Walter Raleigh	Silver Chronometer	Harpoon Gun	Right handed compass user	Sandy Blonde hair	Fear of lightning
John Cabot	Silver Chronometer	Harpoon Gun	Right handed compass user	Sandy Blonde hair	Fear of heights
Bessie Coleman	Golden Sextant	Steam Booster	Right handed compass user	Dark Raven hair	Fear of rust
Ibn Battuta	Golden Sextant	Harpoon Gun	Left handed compass user	Sandy Blonde hair	Fear of rust
Robert Peary	Silver Chronometer	Grappling Hook	Right handed compass user	Fiery Red hair	Fear of rust
Sacagawea	Steam Barometer	Steam Booster	Right handed compass user	Sandy Blonde hair	Fear of heights
Captain Amelia	Silver Chronometer	Steam Booster	Right handed compass user	Sandy Blonde hair	Fear of lightning
Charles Lindbergh	Silver Chronometer	Smoke Screen	Left handed compass user	Sandy Blonde hair	Fear of heights
Nellie Bly	Golden Sextant	Grappling Hook	Left handed compass user	Dark Raven hair	Fear of heights
Vasco da Gama	Brass Spyglass	Steam Booster	Left handed compass user	Dark Raven hair	Fear of lightning
Wilbur Wright	Steam Barometer	Grappling Hook	Right handed compass user	Sandy Blonde hair	Fear of rust
Sally Ride	Solar Astrolabe	Smoke Screen	Right handed compass user	Sandy Blonde hair	Fear of heights

CLUE 1

Multiplication facts (1-12)

The skyguard found a crate of cargo boxes stacked in perfect rows. If we multiply the rows of boxes, we can unlock the security feed showing the thief's escape ship!

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

T																T
108	132	42	22	40	15	15	64	40	20	6	11	42	121	20	11	108
						T							T			
55	121	42	64	121	108	42	64	32	44	11	11	121	108	42	9	

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

$4 \times 11 = \square \rightarrow \boxed{\text{B}}$

$4 \times 8 = \square \rightarrow \boxed{\text{M}}$

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

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

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

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

$9 \times 1 = \square \rightarrow \boxed{\text{R}}$

$2 \times 10 = \square \rightarrow \boxed{\text{N}}$

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

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

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

$6 \times 1 = \square \rightarrow \boxed{\text{D}}$

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

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

Scratch space:

CLUE 2 Addition

We need to tally up all the fuel canisters left on the landing dock. Adding the supplies together will unlock the witness statement from the docking master.

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

T			T						T							T	
7206	7550	5218	7206	7550	4151	5218	3505	4159	7206	5218	5218	4886	4159	5827	4151	7206	7550

T							T				
7206	7550	5218	4886	4151	8974	7550	7206	7550	6780	9421	9734

$4705 + 2501 = \square \rightarrow \boxed{\text{T}}$

$1553 + 3333 = \square \rightarrow \boxed{\text{R}}$

$3466 + 3314 = \square \rightarrow \boxed{\text{A}}$

$3566 + 2261 = \square \rightarrow \boxed{\text{W}}$

$4548 + 4873 = \square \rightarrow \boxed{\text{N}}$

$4002 + 3548 = \square \rightarrow \boxed{\text{H}}$

$5029 + 3945 = \square \rightarrow \boxed{\text{G}}$

$2308 + 2910 = \square \rightarrow \boxed{\text{E}}$

$2740 + 1419 = \square \rightarrow \boxed{\text{S}}$

$2497 + 1654 = \square \rightarrow \boxed{\text{I}}$

$5761 + 3973 = \square \rightarrow \boxed{\text{D}}$

$1449 + 2056 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 3
Subtraction

The thief drained the emergency water tanks. By finding the difference between the starting gallons and what remains, we can bypass the lock on the flight log.

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

T			T																
4318	8013	3115	4318	8013	8205	3115	7600	2760	1598	5211	8205	5600	8534	3115	4767	2220	8013	3115	5211

T											T			
4318	8013	3115	5600	2012	5893	6932	4767	1173	2760	1598	7639	4318	3115	4767

$8582 - 4264 = \square \rightarrow \boxed{\text{T}}$	$2594 - 996 = \square \rightarrow \boxed{\text{A}}$	$12310 - 4710 = \square \rightarrow \boxed{\text{F}}$
$11559 - 3025 = \square \rightarrow \boxed{\text{K}}$	$5922 - 711 = \square \rightarrow \boxed{\text{N}}$	$2139 - 966 = \square \rightarrow \boxed{\text{S}}$
$10481 - 2842 = \square \rightarrow \boxed{\text{R}}$	$8002 - 1070 = \square \rightarrow \boxed{\text{U}}$	$6015 - 4003 = \square \rightarrow \boxed{\text{L}}$
$6270 - 3155 = \square \rightarrow \boxed{\text{E}}$	$6103 - 3883 = \square \rightarrow \boxed{\text{W}}$	$5396 - 2636 = \square \rightarrow \boxed{\text{P}}$
$13188 - 4983 = \square \rightarrow \boxed{\text{I}}$	$8544 - 3777 = \square \rightarrow \boxed{\text{D}}$	$10722 - 4829 = \square \rightarrow \boxed{\text{O}}$
$12355 - 4342 = \square \rightarrow \boxed{\text{H}}$	$10000 - 4400 = \square \rightarrow \boxed{\text{C}}$	

Scratch space:

CLUE 4 Place value

The thief scrambled the coordinates on the navigation console. We must identify the correct digit in the hundreds place to decrypt the flight recorder!

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

W																	
800	8000	10	400	100	30	2000	40	50	30	2000	90	3000	7000	400	30	2000	8000
40	1000	200	50	30	2000	40	400	30	1000	80	8000	40	8000	50	1000		

What is the value of the 8 in 60,841?

→ **W**

What is the value of the 2 in 12,056?

→ **D**

What is the value of the 8 in 90,582?

→ **H**

What is the value of the 1 in 71,249?

→ **T**

What is the value of the 1 in 95,143?

→ **U**

What is the value of the 7 in 37,216?

→ **L**

What is the value of the 1 in 678,712?

→ **F**

What is the value of the 3 in 429,237?

→ **N**

What is the value of the 3 in 573,424?

→ **B**

What is the value of the 8 in 678,229?

→ **E**

What is the value of the 4 in 83,649?

→ **S**

What is the value of the 2 in 97,284?

→ **R**

What is the value of the 9 in 65,891?

→ **Y**

What is the value of the 5 in 20,953?

→ **A**

What is the value of the 4 in 67,451?

→ **O**

Scratch space:

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

We found a bag of sky-rubies dropped by the suspect. If we divide the gems equally among our crew members, the leftover count will reveal 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:

$6 \div 6 = \boxed{}$

$48 \div 6 = \boxed{}$

$2 \div 1 = \boxed{}$

$33 \div 3 = \boxed{}$

$49 \div 7 = \boxed{}$

$15 \div 5 = \boxed{}$

$99 \div 11 = \boxed{}$

$90 \div 9 = \boxed{}$

$24 \div 2 = \boxed{}$

$45 \div 9 = \boxed{}$

$42 \div 7 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain measured the air pressure with a steam barometer, then vanished behind a thick smoke screen.
2. The villain scanned the horizon with a brass spyglass, then drifted away on glider wings.
3. The villain measured the air pressure with a steam barometer, then escaped by firing a grappling hook.
4. The villain checked the flight time with a silver chronometer, then blasted a path with a harpoon gun.
5. The villain measured the air pressure with a steam barometer, then zoomed off using a steam booster.
6. The villain checked the flight time with a silver chronometer, then escaped by firing a grappling hook.
7. The villain checked the flight time with a silver chronometer, then vanished behind a thick smoke screen.
8. The villain measured the sun with a solar astrolabe, then vanished behind a thick smoke screen.
9. The villain calculated the stars with a golden sextant, then drifted away on glider wings.
10. The villain measured the sun with a solar astrolabe, then zoomed off using a steam booster.
11. The villain calculated the stars with a golden sextant, then vanished behind a thick smoke screen.
12. The villain calculated the stars with a golden sextant, then escaped by firing a grappling hook.

Answer Key

Mystery of the Skyland Map

Culprit: John Cabot

Silver Chronometer · Harpoon Gun · Right handed compass user · Sandy Blonde hair · Fear of heights

Trail: Start 21 → Clue 1 15 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT USE A STEAM BOOSTER"

$9 \times 12 = 108$ (T) · $4 \times 11 = 44$ (B) · $4 \times 8 = 32$ (M) · $1 \times 11 = 11$ (O) · $8 \times 8 = 64$ (A) · $3 \times 5 = 15$ (L) · $2 \times 11 = 22$ (V) · $9 \times 1 = 9$ (R) · $2 \times 10 = 20$ (N) · $11 \times 12 = 132$ (H) · $10 \times 4 = 40$ (I) · $5 \times 11 = 55$ (U) · $6 \times 1 = 6$ (D) · $11 \times 11 = 121$ (S) · $7 \times 6 = 42$ (E)

Clue 2 (Addition): "THE THIEF STEERS WITH THE RIGHT HAND"

$4705 + 2501 = 7206$ (T) · $1553 + 3333 = 4886$ (R) · $3466 + 3314 = 6780$ (A) · $3566 + 2261 = 5827$ (W) · $4548 + 4873 = 9421$ (N) · $4002 + 3548 = 7550$ (H) · $5029 + 3945 = 8974$ (G) · $2308 + 2910 = 5218$ (E) · $2740 + 1419 = 4159$ (S) · $2497 + 1654 = 4151$ (I) · $5761 + 3973 = 9734$ (D) · $1449 + 2056 = 3505$ (F)

Clue 3 (Subtraction): "THE THIEF PANICKED WHEN THE CLOUDS PARTED"

$8582 - 4264 = 4318$ (T) · $2594 - 996 = 1598$ (A) · $12310 - 4710 = 7600$ (F) · $11559 - 3025 = 8534$ (K) · $5922 - 711 = 5211$ (N) · $2139 - 966 = 1173$ (S) · $10481 - 2842 = 7639$ (R) · $8002 - 1070 = 6932$ (U) · $6015 - 4003 = 2012$ (L) · $6270 - 3155 = 3115$ (E) · $6103 - 3883 = 2220$ (W) · $5396 - 2636 = 2760$ (P) · $13188 - 4983 = 8205$ (I) · $8544 - 3777 = 4767$ (D) · $10722 - 4829 = 5893$ (O) · $12355 - 4342 = 8013$ (H) · $10000 - 4400 = 5600$ (C)

Clue 4 (Place value): "WE FOUND SANDY BLONDE STRANDS ON THE SEAT"

What is the value of the 8 in 60,841? = 800 (W) · What is the value of the 2 in 12,056? = 2000 (D) · What is the value of the 8 in 90,582? = 80 (H) · What is the value of the 1 in 71,249? = 1000 (T) · What is the value of the 1 in 95,143? = 100 (U) · What is the value of the 7 in 37,216? = 7000 (L) · What is the value of the 1 in 678,712? = 10 (F) · What is the value of the 3 in 429,237? = 30 (N) · What is the value of the 3 in 573,424? = 3000 (B) · What is the value of the 8 in 678,229? = 8000 (E) · What is the value of the 4 in 83,649? = 40 (S) · What is the value of the 2 in 97,284? = 200 (R) · What is the value of the 9 in 65,891? = 90 (Y) · What is the value of the 5 in 20,953? = 50 (A) · What is the value of the 4 in 67,451? = 400 (O)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → John Cabot

$6 \div 6 = 1$ · $48 \div 6 = 8$ · $2 \div 1 = 2$ · $33 \div 3 = 11$ · $49 \div 7 = 7$ · $15 \div 5 = 3$ · $99 \div 11 = 9$ · $90 \div 9 = 10$ · $24 \div 2 = 12$ · $45 \div 9 = 5$ · $42 \div 7 = 6$