



The Sky Ship Mystery

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

Detective: _____ **Date:** _____

A sneaky sky bandit has swiped the Golden Wind-Compass from the library! The Sky Patrol needs your help to decode the flight logs and catch the culprit before they sail beyond the horizon.

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 Bandit is _____

Possible suspects

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

NAME	ESCAPE GEAR	POCKETS TOOL	GOGGLE STATUS	HAIR STYLE	FOIL ITEM
Sally	glider wing	pocket watch	not wearing goggles	spiky hair	loud whistle
Clark	smoke bomb	compass	not wearing goggles	curly hair	loud whistle
Hazel	grappling hook	signal flag	not wearing goggles	spiky hair	tickle feather
Chuck	glider wing	map scroll	not wearing goggles	spiky hair	tickle feather
Wilbur	glider wing	signal flag	not wearing goggles	braided hair	shiny coin
Freya	smoke bomb	pocket watch	wearing goggles	curly hair	loud whistle
James	cloud shield	pocket watch	wearing goggles	spiky hair	loud whistle
Charles	grappling hook	pocket watch	not wearing goggles	braided hair	tickle feather
Jasper	cloud shield	spyglass	wearing goggles	spiky hair	tickle feather
Marco	cloud shield	pocket watch	wearing goggles	braided hair	tickle feather
Luna	wind booster	signal flag	wearing goggles	braided hair	tickle feather
Pip	glider wing	compass	not wearing goggles	braided hair	loud whistle
Rusty	cloud shield	signal flag	wearing goggles	spiky hair	tickle feather
Bessie	cloud shield	compass	not wearing goggles	curly hair	tickle feather
Amelia	wind booster	pocket watch	wearing goggles	spiky hair	tickle feather
Hudson	cloud shield	spyglass	not wearing goggles	spiky hair	tickle feather
Neil	cloud shield	pocket watch	wearing goggles	curly hair	shiny coin
Leo	wind booster	pocket watch	not wearing goggles	spiky hair	tickle feather
Buzz	smoke bomb	map scroll	wearing goggles	curly hair	shiny coin
Lewis	smoke bomb	spyglass	wearing goggles	braided hair	shiny coin
Isabella	grappling hook	compass	not wearing goggles	spiky hair	tickle feather

CLUE 1

Multiplication facts (1-12)

The Sky Patrol found rows of supply crates left behind by the runaway airship. We can find the first clue if we multiply the crates to count them all.

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

T									T									T
33	9	99	108	14	56	36	22	33	36	40	99	144	56	40	33			
100	14	132	132	90	14	144	22	70	56	14	24	60	24	14	70			

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

$9 \times 4 = \square \rightarrow \boxed{\text{D}}$

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

$7 \times 2 = \square \rightarrow \boxed{\text{A}}$

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

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

$6 \times 10 = \square \rightarrow \boxed{\text{F}}$

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

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

$10 \times 10 = \square \rightarrow \boxed{\text{C}}$

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

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

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

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

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

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

Scratch space:

CLUE 2

Subtraction

The bandit dropped some stolen gear along the rocky ridge. If we subtract the recovered gear from the total list, we will know what is still missing.

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

T															
7799	6981	7725	5638	7672	5638	3033	7725	8067	7799	6981	3395	7955	4474	1759	

7121	1759	7121	7121	3460	7725	5638	1759	4474	7799	6981	7725	4001	6111	1087	3395	8067	7725			

$12220 - 4421 = \square \rightarrow \text{[T]}$

$8716 - 1044 = \square \rightarrow \text{[U]}$

$9775 - 2050 = \square \rightarrow \text{[E]}$

$8707 - 1726 = \square \rightarrow \text{[H]}$

$8577 - 2939 = \square \rightarrow \text{[S]}$

$8435 - 2324 = \square \rightarrow \text{[R]}$

$4439 - 979 = \square \rightarrow \text{[L]}$

$6395 - 2394 = \square \rightarrow \text{[I]}$

$11769 - 3702 = \square \rightarrow \text{[C]}$

$7766 - 4733 = \square \rightarrow \text{[P]}$

$2927 - 1168 = \square \rightarrow \text{[O]}$

$5712 - 2317 = \square \rightarrow \text{[A]}$

$1718 - 631 = \square \rightarrow \text{[F]}$

$7975 - 3501 = \square \rightarrow \text{[N]}$

$11637 - 4516 = \square \rightarrow \text{[G]}$

$11316 - 3361 = \square \rightarrow \text{[D]}$

Scratch space:

CLUE 3 Addition

The dock manager tallied up the weight of all the fuel barrels loaded today. Adding these weights together will reveal our next clue.

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

A									A				
3393	5256	8926	9725	3477	4577	2514	9503	2514	3393	5256	9737	2514	4378

											A					
3846	5256	3287	4214	4214	2514	3580	5256	9737	2514	4290	8926	4577	4577	3393	8926	8871

$1060 + 2333 = \square \rightarrow \text{A}$	$5254 + 3672 = \square \rightarrow \text{I}$	$3315 + 5556 = \square \rightarrow \text{N}$
$1444 + 2136 = \square \rightarrow \text{D}$	$2531 + 1683 = \square \rightarrow \text{P}$	$1593 + 1884 = \square \rightarrow \text{K}$
$2854 + 1723 = \square \rightarrow \text{L}$	$2015 + 1272 = \square \rightarrow \text{O}$	$5431 + 4294 = \square \rightarrow \text{C}$
$1333 + 1181 = \square \rightarrow \text{E}$	$1738 + 2552 = \square \rightarrow \text{V}$	$6471 + 3032 = \square \rightarrow \text{F}$
$2861 + 2395 = \square \rightarrow \text{T}$	$6430 + 3307 = \square \rightarrow \text{H}$	$2585 + 1261 = \square \rightarrow \text{S}$
$3056 + 1322 = \square \rightarrow \text{R}$		

Scratch space:

CLUE 4

The tracking radar is old and only shows numbers rounded to the nearest ten. Round the radar signals to find the bandit's heading.

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

7000 50 2300 500 2300 7000 2300 70 7000 300 430 2300 3000 90 1700 4300 1100 500

3000 9000 300 110 2000 50 30 300 370

Round 7,094 to the nearest thousand → **T**

Round 1,658 to the nearest hundred $\rightarrow$

Round 50 to the nearest ten $\rightarrow$ **H**

Round 456 to the nearest hundred $\rightarrow$ **D**

Round 68 to the nearest ten $\rightarrow$ **C**

Round 4,297 to the nearest hundred $\rightarrow$ **U**

Round 366 to the nearest ten $\rightarrow$ **R**

Round 31 to the nearest ten $\rightarrow$ **A**

Round 92 to the nearest ten $\rightarrow$ **F**

Round 110 to the nearest ten $\rightarrow$ **K**

Round 266 to the nearest hundred $\rightarrow$

Round 1,126 to the nearest hundred $\rightarrow$ **N**

Round 427 to the nearest ten $\rightarrow$ **V**

Round 2,271 to the nearest thousand $\rightarrow$

Round 2,288 to the nearest hundred → **E**

Round 2,698 to the nearest thousand →

Round 8,789 to the nearest thousand $\rightarrow$ **P**

Scratch space:

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

We need to split the search patrol into equal teams to cover the canyon. Dividing the crew evenly will give us 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:

$90 \div 10 = \boxed{}$

$16 \div 8 = \boxed{}$

$15 \div 5 = \boxed{}$

$72 \div 12 = \boxed{}$

$4 \div 1 = \boxed{}$

$42 \div 6 = \boxed{}$

$20 \div 4 = \boxed{}$

$56 \div 7 = \boxed{}$

$60 \div 6 = \boxed{}$

$88 \div 8 = \boxed{}$

$60 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain blocks the way with a cloud shield, then peeks through a spyglass.
2. The villain blasts off using a wind booster, then winds up a pocket watch.
3. The villain zooms away on a glider wing, then checks a map scroll.
4. The villain zooms away on a glider wing, then waves a signal flag.
5. The villain zooms away on a glider wing, then taps on a compass.
6. The villain vanishes behind a smoke bomb, then waves a signal flag.
7. The villain swings across with a grappling hook, then winds up a pocket watch.
8. The villain swings across with a grappling hook, then waves a signal flag.
9. The villain swings across with a grappling hook, then taps on a compass.
10. The villain vanishes behind a smoke bomb, then checks a map scroll.
11. The villain blasts off using a wind booster, then waves a signal flag.
12. The villain blasts off using a wind booster, then peeks through a spyglass.

Answer Key

The Sky Ship Mystery

Culprit: Hudson

cloud shield · spyglass · not wearing goggles · spiky hair · tickle feather

Trail: Start 21 → Clue 1 17 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE BANDIT DOES NOT CARRY A SIGNAL FLAG"

$3 \times 11 = 33$ (T) · $9 \times 4 = 36$ (D) · $8 \times 7 = 56$ (N) · $7 \times 2 = 14$ (A) · $2 \times 11 = 22$ (I) · $10 \times 9 = 90$ (Y) · $6 \times 10 = 60$ (F) · $11 \times 12 = 132$ (R) · $10 \times 7 = 70$ (G) · $10 \times 10 = 100$ (C) · $12 \times 12 = 144$ (S) · $1 \times 9 = 9$ (H) · $4 \times 6 = 24$ (L) · $11 \times 9 = 99$ (E) · $10 \times 4 = 40$ (O) · $9 \times 12 = 108$ (B)

Clue 2 (Subtraction): "THE SUSPECT HAD NO GOGGLES ON THEIR FACE"

$12220 - 4421 = 7799$ (T) · $8716 - 1044 = 7672$ (U) · $9775 - 2050 = 7725$ (E) · $8707 - 1726 = 6981$ (H) · $8577 - 2939 = 5638$ (S) · $8435 - 2324 = 6111$ (R) · $4439 - 979 = 3460$ (L) · $6395 - 2394 = 4001$ (I) · $11769 - 3702 = 8067$ (C) · $7766 - 4733 = 3033$ (P) · $2927 - 1168 = 1759$ (O) · $5712 - 2317 = 3395$ (A) · $1718 - 631 = 1087$ (F) · $7975 - 3501 = 4474$ (N) · $11637 - 4516 = 7121$ (G) · $11316 - 3361 = 7955$ (D)

Clue 3 (Addition): "A TICKLE FEATHER STOPPED THE VILLAIN"

$1060 + 2333 = 3393$ (A) · $5254 + 3672 = 8926$ (I) · $3315 + 5556 = 8871$ (N) · $1444 + 2136 = 3580$ (D) · $2531 + 1683 = 4214$ (P) · $1593 + 1884 = 3477$ (K) · $2854 + 1723 = 4577$ (L) · $2015 + 1272 = 3287$ (O) · $5431 + 4294 = 9725$ (C) · $1333 + 1181 = 2514$ (E) · $1738 + 2552 = 4290$ (V) · $6471 + 3032 = 9503$ (F) · $2861 + 2395 = 5256$ (T) · $6430 + 3307 = 9737$ (H) · $2585 + 1261 = 3846$ (S) · $3056 + 1322 = 4378$ (R)

Clue 4 (Rounding): "THE DETECTIVES FOUND SPIKY HAIR"

Round 7,094 to the nearest thousand = 7000 (T) · Round 1,658 to the nearest hundred = 1700 (O) · Round 50 to the nearest ten = 50 (H) · Round 456 to the nearest hundred = 500 (D) · Round 68 to the nearest ten = 70 (C) · Round 4,297 to the nearest hundred = 4300 (U) · Round 366 to the nearest ten = 370 (R) · Round 31 to the nearest ten = 30 (A) · Round 92 to the nearest ten = 90 (F) · Round 110 to the nearest ten = 110 (K) · Round 266 to the nearest hundred = 300 (I) · Round 1,126 to the nearest hundred = 1100 (N) · Round 427 to the nearest ten = 430 (V) · Round 2,271 to the nearest thousand = 2000 (Y) · Round 2,288 to the nearest hundred = 2300 (E) · Round 2,698 to the nearest thousand = 3000 (S) · Round 8,789 to the nearest thousand = 9000 (P)

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

$90 \div 10 = 9$ · $16 \div 8 = 2$ · $15 \div 5 = 3$ · $72 \div 12 = 6$ · $4 \div 1 = 4$ · $42 \div 6 = 7$ · $20 \div 4 = 5$ · $56 \div 7 = 8$ · $60 \div 6 = 10$ · $88 \div 8 = 11$ · $60 \div 5 = 12$