



The Sky Reach Balloon Mystery

Grade 2 math · Addition, Place value, Subtraction, Skip counting, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

The Golden Compass has been stolen from the Sky Reach Museum! A sneaky Sky Thief flew off into the clouds. We must track the thief down before they map the secret island!

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 Thief is _____

Possible suspects

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

NAME	AIRSHIP GEAR	SKY TOOL	WATCH WRIST	HAIR COLOR	DETERRENT
Sky-Scout Jax	steam balloon	magnet glove	wears compass watch on right wrist	sandy blonde hair	bright flashlights
Amelia Earhart	steam balloon	wind blaster	wears compass watch on left wrist	sandy blonde hair	bright flashlights
Calamity Claire	cloud glider	wind blaster	wears compass watch on left wrist	rusty red hair	bright flashlights
Captain Barnaby	solar wing	grappling hook	wears compass watch on left wrist	rusty red hair	bright flashlights
Gale Grayson	solar wing	grappling hook	wears compass watch on left wrist	sandy blonde hair	loud whistles
Pilot Amelia	cloud glider	wind blaster	wears compass watch on left wrist	rusty red hair	loud whistles
Baron Von Cloud	turbo zeppelin	smoke bomb launcher	wears compass watch on right wrist	rusty red hair	loud whistles
Windy Wendy	propeller pack	spyglass goggles	wears compass watch on right wrist	sandy blonde hair	shiny mirrors
Rusty Ridge	solar wing	magnet glove	wears compass watch on right wrist	sandy blonde hair	loud whistles
Wilbur Wright	steam balloon	wind blaster	wears compass watch on left wrist	sandy blonde hair	shiny mirrors
Breezy Betty	steam balloon	magnet glove	wears compass watch on left wrist	cloud white hair	loud whistles
Navigator Noah	solar wing	magnet glove	wears compass watch on right wrist	sandy blonde hair	shiny mirrors
Goggles Gordon	steam balloon	spyglass goggles	wears compass watch on left wrist	sandy blonde hair	bright flashlights
Charles Lindbergh	cloud glider	smoke bomb launcher	wears compass watch on right wrist	rusty red hair	bright flashlights
Bessie Coleman	solar wing	spyglass goggles	wears compass watch on left wrist	cloud white hair	shiny mirrors
Zephyr Zack	propeller pack	smoke bomb launcher	wears compass watch on left wrist	rusty red hair	shiny mirrors
Orville Wright	cloud glider	grappling hook	wears compass watch on right wrist	sandy blonde hair	bright flashlights
Penny Propeller	propeller pack	grappling hook	wears compass watch on left wrist	sandy blonde hair	bright flashlights
Aero Arthur	cloud glider	wind blaster	wears compass watch on right wrist	sandy blonde hair	bright flashlights
Skyler Smith	cloud glider	grappling hook	wears compass watch on left wrist	sandy blonde hair	bright flashlights
Jet Jenson	steam balloon	smoke bomb launcher	wears compass watch on left wrist	sandy blonde hair	bright flashlights

CLUE 1 **Addition**

The museum guards are counting up the dropped cargo boxes. They need to add the boxes from the north dock and the south dock to see how much gear is missing.

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

T 79	84	78	T 79	84	54	78	32	42	91	78	57	48	91	T 79	89	57	78
57	50	91	81	78	73	91	50	73	57								

$39 + 40 = \square \rightarrow \text{ T }$	$28 + 22 = \square \rightarrow \text{ M }$	$19 + 29 = \square \rightarrow \text{ N }$
$47 + 26 = \square \rightarrow \text{ B }$	$20 + 37 = \square \rightarrow \text{ S }$	$28 + 26 = \square \rightarrow \text{ I }$
$26 + 58 = \square \rightarrow \text{ H }$	$12 + 20 = \square \rightarrow \text{ F }$	$43 + 46 = \square \rightarrow \text{ U }$
$15 + 27 = \square \rightarrow \text{ D }$	$44 + 37 = \square \rightarrow \text{ K }$	$29 + 49 = \square \rightarrow \text{ E }$
$56 + 35 = \square \rightarrow \text{ O }$		

Scratch space:

CLUE 2 Place value

A technician is reading the code on a broken control panel. The digits in the tens and ones places will unlock a locked storage cabinet with a clue.

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

70 61 54 25 69 25 52 54 63 70 29 54 12 44 25

29 12 70 63 61 30 98 70 61 54 67 54 51 70

What number has 7 tens and 0 ones? → T

What number has 5 tens and 1 one? → **F**

What number has 5 tens and 4 ones? → **E**

What number has 4 tens and 4 ones? → **R**

What number has 5 tens and 2 ones? → **P**

What number has 9 tens and 8 ones? → **N**

What number has 2 tens and 9 ones? → **W**

What number has 3 tens and 0 ones? → **0**

What number has 6 tens and 3 ones? → **C**

What number has 2 tens and 7 ones? →

What number has 2 tens and 5 ones? → **S**

What number has 1 ten and 2 ones? → **A**

What number has 6 tens and 7 ones? → **L**

What number has 6 tens and 1 one? → **H**

What number has 6 tens and 9 ones? → **U**

Scratch space:

CLUE 3

The dock master had a full rack of safety ropes. Someone stole several of them, and we must subtract to find out exactly how many are gone.

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

78 24 33 78 24 74 33 31 31 33 51 26 49 43 26 74 71 24 78

31 30 51 49 24 30 74 71 24 78 49

$89 - 11 = \boxed{} \rightarrow \boxed{\text{T}}$

$83 - 32 = \boxed{} \rightarrow \boxed{\text{A}}$

$107 - 33 = \boxed{} \rightarrow \boxed{\text{I}}$

$41 - 11 = \boxed{} \rightarrow \boxed{\text{L}}$

$68 - 35 = \boxed{} \rightarrow \boxed{\text{E}}$

$72 - 1 = \boxed{} \rightarrow \boxed{\text{G}}$

$73 - 30 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$64 - 40 = \boxed{} \rightarrow \boxed{\text{H}}$

$45 - 19 = \boxed{} \rightarrow \boxed{\mathbf{R}}$

$66 - 17 = \boxed{} \rightarrow \boxed{\text{S}}$

$37 - 6 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 4 Skip counting

To reach the high lookout tower, we have to climb the wooden steps. We count them by steps of five to find our way up in the dark fog.

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

W																	
60	15	16	40	18	35	14	130	22	35	14	110	25	80	40	35	14	15
10	22	39	30	22	24	24	10	15	130	42	15	35	15				

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **W**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **C**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **T**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **S**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **L**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **H**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **N**

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **R**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **O**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **F**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 → **D**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, 22 → **U**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **E**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **B**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **Y**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **I**

Scratch space:

CLUE 5**Missing addends - the last clue**

The backup engine needs a total of fifteen coal pieces to start. We only have nine pieces in the bin, so we must find how many more we need.

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:

$10 + \underline{\quad} = 17$

$3 + \underline{\quad} = 4$

$1 + \underline{\quad} = 13$

$1 + \underline{\quad} = 5$

$9 + \underline{\quad} = 17$

$9 + \underline{\quad} = 20$

$1 + \underline{\quad} = 11$

$10 + \underline{\quad} = 12$

$4 + \underline{\quad} = 10$

$7 + \underline{\quad} = 12$

$1 + \underline{\quad} = 10$

Step 2 - cross out the sentence with each answer:

1. The villain drifted off in a steam balloon, then pushed back guards with a wind blaster.
2. The villain soared off on a solar wing, then pushed back guards with a wind blaster.
3. The villain zipped by with a propeller pack, then swung to safety with a grappling hook.
4. The villain sailed away in a turbo zeppelin, then snatched a metal box with a magnet glove.
5. The villain zipped by with a propeller pack, then snatched a metal box with a magnet glove.
6. The villain sailed away in a turbo zeppelin, then peered through spyglass goggles.
7. The villain zoomed away on a cloud glider, then swung to safety with a grappling hook.
8. The villain sailed away in a turbo zeppelin, then escaped using a smoke bomb launcher.
9. The villain zoomed away on a cloud glider, then pushed back guards with a wind blaster.
10. The villain drifted off in a steam balloon, then swung to safety with a grappling hook.
11. The villain soared off on a solar wing, then swung to safety with a grappling hook.
12. The villain drifted off in a steam balloon, then peered through spyglass goggles.

Answer Key

The Sky Reach Balloon Mystery

Culprit: Penny Propeller

propeller pack · grappling hook · wears compass watch on left wrist · sandy blonde hair · bright flashlights

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT USE SMOKE BOMBS"

$39 + 40 = 79$ (T) · $28 + 22 = 50$ (M) · $19 + 29 = 48$ (N) · $47 + 26 = 73$ (B) · $20 + 37 = 57$ (S) · $28 + 26 = 54$ (I) · $26 + 58 = 84$ (H) · $12 + 20 = 32$ (F) · $43 + 46 = 89$ (U) · $15 + 27 = 42$ (D) · $44 + 37 = 81$ (K) · $29 + 49 = 78$ (E) · $56 + 35 = 91$ (O)

Clue 2 (Place value): "THE SUSPECT WEARS THEIR WATCH ON THE LEFT"

What number has 7 tens and 0 ones? = 70 (T) · What number has 5 tens and 1 one? = 51 (F) · What number has 5 tens and 4 ones? = 54 (E) · What number has 4 tens and 4 ones? = 44 (R) · What number has 5 tens and 2 ones? = 52 (P) · What number has 9 tens and 8 ones? = 98 (N) · What number has 2 tens and 9 ones? = 29 (W) · What number has 3 tens and 0 ones? = 30 (O) · What number has 6 tens and 3 ones? = 63 (C) · What number has 2 tens and 7 ones? = 27 (I) · What number has 2 tens and 5 ones? = 25 (S) · What number has 1 ten and 2 ones? = 12 (A) · What number has 6 tens and 7 ones? = 67 (L) · What number has 6 tens and 1 one? = 61 (H) · What number has 6 tens and 9 ones? = 69 (U)

Clue 3 (Subtraction): "THE THIEF FEARS BRIGHT FLASHLIGHTS"

$89 - 11 = 78$ (T) · $83 - 32 = 51$ (A) · $107 - 33 = 74$ (I) · $41 - 11 = 30$ (L) · $68 - 35 = 33$ (E) · $72 - 1 = 71$ (G) · $73 - 30 = 43$ (B) · $64 - 40 = 24$ (H) · $45 - 19 = 26$ (R) · $66 - 17 = 49$ (S) · $37 - 6 = 31$ (F)

Clue 4 (Skip counting): "WE FOUND SANDY BLONDE HAIR AT THE SCENE"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 = 60 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (C) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (N) · Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (R) · Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 = 40 (O) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (D) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, 22 = 18 (U) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (B) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (Y) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (I)

Clue 5 (Missing addends): surviving statement is box 3 → Penny Propeller

$10 + \underline{\quad} = 17 = 7$ · $3 + \underline{\quad} = 4 = 1$ · $1 + \underline{\quad} = 13 = 12$ · $1 + \underline{\quad} = 5 = 4$ · $9 + \underline{\quad} = 17 = 8$ · $9 + \underline{\quad} = 20 = 11$ · $1 + \underline{\quad} = 11 = 10$ · $10 + \underline{\quad} = 12 = 2$ · $4 + \underline{\quad} = 10 = 6$ · $7 + \underline{\quad} = 12 = 5$ · $1 + \underline{\quad} = 10 = 9$