



The Great Wind-Engine Heist

Grade 4 math · Multiplication, Multi-step word problems, Word problems, Addition, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

A sneaky rogue sky captain has stolen the golden wind-engine key from the Chief Cloud Keeper! Without it, the floating islands will slowly drift away into the endless blue sky. You must help the Sky Patrol trace the clues, solve the math, and find the culprit before the islands drift too far!

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 rogue sky captain is _____

Possible suspects

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

NAME	SKY GADGET	PET SIDEKICK	STEERING GRIP	CLOUD CAP	FEAR
Marina Mist	Sky-Net	Gale Squirrel	Right-Handed Steering	Gold Cloud Cap	Tickle Feathers
Captain Gale	Fog-Cloak	Mist Monkey	Left-Handed Steering	Red Cloud Cap	Tickle Feathers
Dash Daring	Wind-Grapple	Breezy Bat	Left-Handed Steering	Red Cloud Cap	Tickle Feathers
Captain Finley	Storm-Blaster	Storm Parrot	Right-Handed Steering	Blue Cloud Cap	Squeaky Toys
Captain Claude	Storm-Blaster	Wind Weasel	Right-Handed Steering	Red Cloud Cap	Tickle Feathers
Captain Coral	Storm-Blaster	Wind Weasel	Right-Handed Steering	Red Cloud Cap	Squeaky Toys
Wendy Wing	Sky-Net	Breezy Bat	Right-Handed Steering	Red Cloud Cap	Tickle Feathers
Cora Cloud	Cloud-Glider	Mist Monkey	Left-Handed Steering	Gold Cloud Cap	Tickle Feathers
Piper Puff	Sky-Net	Breezy Bat	Left-Handed Steering	Gold Cloud Cap	Tickle Feathers
Sky-Pirate Pete	Fog-Cloak	Mist Monkey	Left-Handed Steering	Gold Cloud Cap	Tickle Feathers
Windy Wanda	Wind-Grapple	Mist Monkey	Right-Handed Steering	Red Cloud Cap	Tickle Feathers
Skyler Breeze	Cloud-Glider	Wind Weasel	Left-Handed Steering	Red Cloud Cap	Tickle Feathers
Sky-Pirate Penny	Sky-Net	Wind Weasel	Left-Handed Steering	Gold Cloud Cap	Squeaky Toys
Captain Jet	Fog-Cloak	Wind Weasel	Left-Handed Steering	Red Cloud Cap	Shiny Coins
Zephyr Zack	Cloud-Glider	Mist Monkey	Right-Handed Steering	Red Cloud Cap	Squeaky Toys
Sunny Sally	Storm-Blaster	Mist Monkey	Right-Handed Steering	Blue Cloud Cap	Squeaky Toys
Pilot Penelope	Fog-Cloak	Wind Weasel	Left-Handed Steering	Red Cloud Cap	Tickle Feathers
Barnaby Blast	Fog-Cloak	Breezy Bat	Left-Handed Steering	Red Cloud Cap	Squeaky Toys
Stormy Sam	Sky-Net	Wind Weasel	Right-Handed Steering	Gold Cloud Cap	Tickle Feathers
Roger Rust	Storm-Blaster	Storm Parrot	Right-Handed Steering	Red Cloud Cap	Shiny Coins
Captain Kiara	Cloud-Glider	Gale Squirrel	Left-Handed Steering	Red Cloud Cap	Tickle Feathers

CLUE 1
Multiplication facts (1-12)

We need to figure out which sky-island the villain sailed to first. Solve this navigation map word problem to find their path.

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

T 72	121	25	T 72	121	56	25	99	64	14	25	33	24	14	T 72	121	3	12	25
3	44	3	66	25	33	11	50	56	5	5	25	66						

$9 \times 8 = \square \rightarrow \text{T}$	$11 \times 11 = \square \rightarrow \text{H}$	$7 \times 8 = \square \rightarrow \text{I}$	
$6 \times 11 = \square \rightarrow \text{L}$	$2 \times 6 = \square \rightarrow \text{V}$	$4 \times 11 = \square \rightarrow \text{G}$	
$2 \times 12 = \square \rightarrow \text{N}$	$1 \times 11 = \square \rightarrow \text{Q}$	$5 \times 1 = \square \rightarrow \text{R}$	
$5 \times 5 = \square \rightarrow \text{E}$	$11 \times 3 = \square \rightarrow \text{S}$	$8 \times 8 = \square \rightarrow \text{D}$	$2 \times 7 = \square \rightarrow \text{O}$
$3 \times 1 = \square \rightarrow \text{A}$	$11 \times 9 = \square \rightarrow \text{F}$	$10 \times 5 = \square \rightarrow \text{U}$	

Scratch space:

CLUE 2

Multi-step word problems

The sky-ship left behind several heavy crates of supplies. Solve this multi-step problem to calculate the leftover fuel canisters and trace their route.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

L							D		D	S				R	I		G
38	68	85	84	13	40	42	68			84	68	68		42			

There were 154 wind compass in all. 4 Sky Patrol used 10 wind compass each. The other 3 Sky Patrol shared the rest equally. How many wind compass did each of the other Sky Patrol get?

Answer: → **L**

Scout earned 4 spyglass in each of 3 rounds, plus 87 bonus spyglass. Then 14 spyglass were lost. How many spyglass are left?

Answer: → **F**

There were 210 brass gear in all. 10 brass gear were set aside. The rest were shared equally among 5 Sky Patrol. How many brass gear did each get?

Answer: → **A**

There were 188 brass gear in all. 4 Sky Patrol used 26 brass gear each. The other 2 Sky Patrol shared the rest equally. How many brass gear did each of the other Sky Patrol get?

Answer: → **N**

Scout collected 6 brass gear in the morning and 130 brass gear in the afternoon, then split them equally among 2 Sky Patrol. How many brass gear did each get?

Answer: → **E**

Scout earned 8 sky map in each of 3 rounds, plus 74 bonus sky map. Then 14 sky map were lost. How many sky map are left?

Answer: → **T**

There were 96 cloud crystal in all. 3 Sky Patrol used 19 cloud crystal each. The other 3 Sky Patrol shared the rest equally. How many cloud crystal did each of the other Sky Patrol get?

Answer: → **H**

Scratch space:

CLUE 3

Word problems

We found neat rows of mysterious cargo boxes left in the sky-dock. Count the rows and columns using multiplication to unlock the shipping crate.

Solve each problem, then write its letter in the boxes to fill in the missing word.

Someone scared the villain off with

T								A	T	H		R	S	.
70	29	52	19	36	57	16	57	70	57					

Scout found 19 wind compass yesterday and 51 more today. How many wind compass in all?

Answer: → **T**

There were 87 spyglass. 35 were used up. How many spyglass are left?

Answer: → **C**

Scout lined up 4 rows of 4 sky map. How many sky map in all?

Answer: → **F**

Scout lined up 3 rows of 12 brass gear. How many brass gear in all?

Answer: → **L**

There were 79 sky map. 22 were used up. How many sky map are left?

Answer: → **E**

There were 58 spyglass. 29 were used up. How many spyglass are left?

Answer: → **I**

Scout found 3 brass gear yesterday and 16 more today. How many brass gear in all?

Answer: → **K**

Scratch space:

CLUE 4

Tally up all the brass gears found on the wooden deck to find the ship weight limit and rule out the heavy vessels.

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

$$2267 + 3778 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$3737 + 3213 = \boxed{} \rightarrow \boxed{0}$$

$3848 + 3185 = \boxed{} \rightarrow \boxed{\text{E}}$

$1085 + 1592 = \boxed{} \rightarrow \boxed{\text{S}}$

$4072 + 1853 = \boxed{} \rightarrow \boxed{\text{D}}$

$1361 + 2658 = \boxed{} \rightarrow \boxed{\text{W}}$

$$1042 + 1093 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$3856 + 3442 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$3859 + 2522 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$2052 + 2479 = \boxed{} \rightarrow \boxed{\text{C}}$$

$3620 + 2984 = \boxed{} \rightarrow \boxed{\text{R}}$

Scratch space:

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

We must share the emergency rescue energy bars equally among our scout birds so they have enough strength to fly out and search.

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:

$33 \div 11 = \square$

$11 \div 1 = \square$

$45 \div 5 = \square$

$60 \div 12 = \square$

$24 \div 2 = \square$

$4 \div 1 = \square$

$6 \div 3 = \square$

$16 \div 2 = \square$

$60 \div 10 = \square$

$90 \div 9 = \square$

$11 \div 11 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain disappeared in a fog-cloak, then summoned a breezy bat.
2. The villain threw a heavy sky-net, then summoned a breezy bat.
3. The villain disappeared in a fog-cloak, then ordered a mist monkey.
4. The villain zoomed on a cloud-glider, then sent out a storm parrot.
5. The villain zapped with a storm-blaster, then whistled for a gale squirrel.
6. The villain zoomed on a cloud-glider, then ordered a mist monkey.
7. The villain fired a wind-grapple, then summoned a breezy bat.
8. The villain threw a heavy sky-net, then whistled for a gale squirrel.
9. The villain zoomed on a cloud-glider, then released a wind weasel.
10. The villain zapped with a storm-blaster, then sent out a storm parrot.
11. The villain disappeared in a fog-cloak, then released a wind weasel.
12. The villain fired a wind-grapple, then whistled for a gale squirrel.

Answer Key

The Great Wind-Engine Heist

Culprit: Dash Daring

Wind-Grapple · Breezy Bat · Left-Handed Steering · Red Cloud Cap · Tickle Feathers

Trail: Start 21 → Clue 1 19 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT HAVE A GALE SQUIRREL"

$9 \times 8 = 72$ (T) · $11 \times 11 = 121$ (H) · $7 \times 8 = 56$ (I) · $6 \times 11 = 66$ (L) · $2 \times 6 = 12$ (V) · $4 \times 11 = 44$ (G) · $2 \times 12 = 24$ (N) · $1 \times 11 = 11$ (Q) · $5 \times 1 = 5$ (R) · $5 \times 5 = 25$ (E) · $11 \times 3 = 33$ (S) · $8 \times 8 = 64$ (D) · $2 \times 7 = 14$ (O) · $3 \times 1 = 3$ (A) · $11 \times 9 = 99$ (F) · $10 \times 5 = 50$ (U)

Clue 2 (Multi-step word problems): "LEFT HANDED STEERING"

There were 154 wind compass in all. 4 Sky Patrol used 10 wind compass each. The other 3 Sky Patrol shared the rest equally. How many wind compass did each of the other Sky Patrol get? = 38 (L) · Scout earned 4 spyglass in each of 3 rounds, plus 87 bonus spyglass. Then 14 spyglass were lost. How many spyglass are left? = 85 (F) · There were 210 brass gear in all. 10 brass gear were set aside. The rest were shared equally among 5 Sky Patrol. How many brass gear did each get? = 40 (A) · There were 188 brass gear in all. 4 Sky Patrol used 26 brass gear each. The other 2 Sky Patrol shared the rest equally. How many brass gear did each of the other Sky Patrol get? = 42 (N) · Scout collected 6 brass gear in the morning and 130 brass gear in the afternoon, then split them equally among 2 Sky Patrol. How many brass gear did each get? = 68 (E) · Scout earned 8 sky map in each of 3 rounds, plus 74 bonus sky map. Then 14 sky map were lost. How many sky map are left? = 84 (T) · There were 96 cloud crystal in all. 3 Sky Patrol used 19 cloud crystal each. The other 3 Sky Patrol shared the rest equally. How many cloud crystal did each of the other Sky Patrol get? = 13 (H)

Clue 3 (Word problems): "TICKLE FEATHERS"

Scout found 19 wind compass yesterday and 51 more today. How many wind compass in all? = 70 (T) · There were 87 spyglass. 35 were used up. How many spyglass are left? = 52 (C) · Scout lined up 4 rows of 4 sky map. How many sky map in all? = 16 (F) · Scout lined up 3 rows of 12 brass gear. How many brass gear in all? = 36 (L) · There were 79 sky map. 22 were used up. How many sky map are left? = 57 (E) · There were 58 spyglass. 29 were used up. How many spyglass are left? = 29 (I) · Scout found 3 brass gear yesterday and 16 more today. How many brass gear in all? = 19 (K)

Clue 4 (Addition): "A RED CLOUD CAP WAS DROPPED"

$2267 + 3778 = 6045$ (A) · $3737 + 3213 = 6950$ (O) · $3848 + 3185 = 7033$ (E) · $1085 + 1592 = 2677$ (S) · $4072 + 1853 = 5925$ (D) · $1361 + 2658 = 4019$ (W) · $1042 + 1093 = 2135$ (P) · $3856 + 3442 = 7298$ (L) · $3859 + 2522 = 6381$ (U) · $2052 + 2479 = 4531$ (C) · $3620 + 2984 = 6604$ (R)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Dash Daring

$33 \div 11 = 3$ · $11 \div 1 = 11$ · $45 \div 5 = 9$ · $60 \div 12 = 5$ · $24 \div 2 = 12$ · $4 \div 1 = 4$ · $6 \div 3 = 2$ · $16 \div 2 = 8$ · $60 \div 10 = 6$ · $90 \div 9 = 10$ · $11 \div 11 = 1$