



The Cloud Engine Caper

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

Detective: _____ **Date:** _____

The gold-powered Cloud Engine has been stolen from the Sky Academy dock! Without it, our floating school will sink into the fog. We must find the Sky Bandit and recover the engine before it is too late.

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	SKY GADGET	AIRSHIP UPGRADE	STEERING HAND	GOGGLE STRAP COLOR	FAVORITE SNACK
Officer Ollie	Spark Glove	Cloud Shields	Left-handed	Sky Blue	Cheese Crackers
Sienna Storm	Wind Whistle	Cloud Shields	Right-handed	Sky Blue	Maple Waffles
Pilot Penny	Glider Pack	Iron Anchor	Left-handed	Bright Yellow	Sour Apples
Finley Fly	Wind Whistle	Solar Wings	Left-handed	Bright Yellow	Sour Apples
Viper Vance	Grappling Bow	Stealth Sails	Right-handed	Sky Blue	Sour Apples
Harper Hover	Spark Glove	Cloud Shields	Right-handed	Neon Green	Cheese Crackers
Saber Swift	Spark Glove	Solar Wings	Left-handed	Bright Yellow	Cheese Crackers
Scout Sally	Spark Glove	Stealth Sails	Left-handed	Neon Green	Cheese Crackers
Dexter Drift	Spark Glove	Solar Wings	Left-handed	Neon Green	Maple Waffles
Rusty Rigg	Grappling Bow	Iron Anchor	Right-handed	Sky Blue	Cheese Crackers
Wendy Wing	Net Launcher	Solar Wings	Left-handed	Neon Green	Cheese Crackers
Piper Prop	Spark Glove	Cloud Shields	Right-handed	Sky Blue	Cheese Crackers
Nimbus Ned	Grappling Bow	Solar Wings	Right-handed	Sky Blue	Cheese Crackers
Zephyr Zach	Grappling Bow	Solar Wings	Right-handed	Sky Blue	Sour Apples
Skyler Cloud	Glider Pack	Solar Wings	Right-handed	Sky Blue	Cheese Crackers
Dash Daring	Spark Glove	Iron Anchor	Right-handed	Sky Blue	Cheese Crackers
Breezy Bob	Wind Whistle	Cloud Shields	Right-handed	Neon Green	Sour Apples
Ace Aerial	Grappling Bow	Solar Wings	Right-handed	Bright Yellow	Sour Apples
Echo Evans	Net Launcher	Cloud Shields	Left-handed	Sky Blue	Cheese Crackers
Captain Barnaby	Grappling Bow	Stealth Sails	Right-handed	Sky Blue	Cheese Crackers
Toby Turbo	Spark Glove	Stealth Sails	Right-handed	Neon Green	Cheese Crackers

CLUE 1

We need to count the gear bags left in the hangar. Solve these cadet training problems to see how many bags we have left.

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

[illegible]

Round 2,651 to the nearest thousand $\rightarrow$ **T**

Round 9,025 to the nearest thousand → **G**

Round 711 to the nearest hundred $\rightarrow$ **D**

Round 475 to the nearest hundred $\rightarrow$ **H**

Round 2,894 to the nearest hundred $\rightarrow$ **B**

Round 46 to the nearest ten $\rightarrow$ **L**

Round 5,212 to the nearest thousand $\rightarrow$ **0**

Round 93 to the nearest ten $\rightarrow$ **U**

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

Round 1,143 to the nearest hundred $\rightarrow$ **N**

Round 1,256 to the nearest hundred → **E**

Round 434 to the nearest ten $\rightarrow$

Round 6,798 to the nearest thousand → **A**

Round 324 to the nearest hundred $\rightarrow$ **S**

Round 2,305 to the nearest hundred → **R**

Scratch space:

CLUE 2

Word problems

The radar screen is dusty, so we can only read the rounded numbers. Solve this to clean the glass and find the flight path.

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

A witness saw the villain was R D E D .

55 36 31 78 28 78 69 40

There were 58 spyglass. 3 were used up. How many spyglass are left?

Answer: → R

There were 99 cloud bottle. 30 were used up. How many cloud bottle are left?

Answer: → A

There were 38 compass. 7 were used up. How many compass are left?

Answer: → G

Flight Cadet lined up 5 rows of 8 spyglass. How many spyglass in all?

Answer: → N

Flight Cadet lined up 7 rows of 4 cloud bottle. How many cloud bottle in all?

Answer: → T

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

Answer: → I

Flight Cadet found 7 sky map yesterday and 71 more today. How many sky map in all?

Answer: → H

Scratch space:

CLUE 3 Addition

Let us total up all the fuel canisters found near the dock. Add these numbers together to unlock the cargo log.

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

$3951 + 1966 = \boxed{} \rightarrow \boxed{\text{O}}$

$1390 + 829 = \boxed{} \rightarrow \boxed{\text{G}}$

$4719 + 5040 = \boxed{} \rightarrow \boxed{\text{A}}$

$6330 + 2712 = \boxed{} \rightarrow \boxed{\text{N}}$

$2472 + 2192 = \boxed{} \rightarrow \boxed{\text{H}}$

$2473 + 3589 = \boxed{} \rightarrow \boxed{\text{R}}$

$1344 + 666 = \boxed{} \rightarrow \boxed{\text{B}}$

$2540 + 1569 = \boxed{} \rightarrow \boxed{\text{U}}$

$3627 + 1931 = \boxed{} \rightarrow \boxed{\text{K}}$

$2124 + 2202 = \boxed{} \rightarrow \boxed{\text{E}}$

$1632 + 1237 = \boxed{} \rightarrow \boxed{\text{M}}$

$3467 + 1616 = \boxed{} \rightarrow \boxed{\text{W}}$

$1807 + 2750 = \boxed{} \rightarrow \boxed{\text{S}}$

$4266 + 1897 = \boxed{} \rightarrow \boxed{\text{T}}$

$4720 + 3372 = \boxed{} \rightarrow \boxed{\text{C}}$

Scratch space:

CLUE 4 Subtraction

The thief dropped some map pieces during their escape. Subtract the missing pieces to find out which route they took.

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

T											T								
1315	6168	7227	3006	4096	5181	8605	8605	7227	1334	3006	1315	8450	5181	8605	4435	5181	3006	5181	
3006	1993	3061	3264	1259	5311	7227	7196	1458	1259	1458	8450								

$4014 - 2699 = \square \rightarrow \boxed{\text{T}}$

$4390 - 294 = \square \rightarrow \boxed{\text{N}}$

$11856 - 3251 = \square \rightarrow \boxed{\text{P}}$

$7644 - 2333 = \square \rightarrow \boxed{\text{U}}$

$10564 - 3337 = \square \rightarrow \boxed{\text{E}}$

$4480 - 1216 = \square \rightarrow \boxed{\text{B}}$

$7247 - 51 = \square \rightarrow \boxed{\text{C}}$

$3392 - 331 = \square \rightarrow \boxed{\text{Y}}$

$3432 - 2098 = \square \rightarrow \boxed{\text{D}}$

$4985 - 3726 = \square \rightarrow \boxed{\text{L}}$

$4836 - 401 = \square \rightarrow \boxed{\text{W}}$

$6462 - 1281 = \square \rightarrow \boxed{\text{A}}$

$12549 - 4099 = \square \rightarrow \boxed{\text{R}}$

$7281 - 4275 = \square \rightarrow \boxed{\text{S}}$

$4212 - 2219 = \square \rightarrow \boxed{\text{K}}$

$5826 - 4368 = \square \rightarrow \boxed{\text{O}}$

$8732 - 2564 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

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

We must divide our scout team evenly into the rescue gliders. Solve this to launch the planes and corner the thief.

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:

$84 \div 7 = \boxed{}$

$35 \div 7 = \boxed{}$

$22 \div 11 = \boxed{}$

$7 \div 1 = \boxed{}$

$6 \div 6 = \boxed{}$

$18 \div 2 = \boxed{}$

$12 \div 2 = \boxed{}$

$88 \div 8 = \boxed{}$

$80 \div 10 = \boxed{}$

$50 \div 5 = \boxed{}$

$27 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain soared over the deck with a Glider Pack, then soared toward the sun on Solar Wings.
2. The villain swung aboard using a Grappling Bow, then secured the stolen cargo with an Iron Anchor.
3. The villain trapped the guard dogs with a Net Launcher, then secured the stolen cargo with an Iron Anchor.
4. The villain disabled the alarm with a Spark Glove, then vanished into the mist behind Cloud Shields.
5. The villain disabled the alarm with a Spark Glove, then secured the stolen cargo with an Iron Anchor.
6. The villain summoned a thick mist with a Wind Whistle, then vanished into the mist behind Cloud Shields.
7. The villain trapped the guard dogs with a Net Launcher, then vanished into the mist behind Cloud Shields.
8. The villain trapped the guard dogs with a Net Launcher, then slipped away silently using Stealth Sails.
9. The villain soared over the deck with a Glider Pack, then escaped by firing up the Turbo Boosters.
10. The villain summoned a thick mist with a Wind Whistle, then secured the stolen cargo with an Iron Anchor.
11. The villain trapped the guard dogs with a Net Launcher, then soared toward the sun on Solar Wings.
12. The villain swung aboard using a Grappling Bow, then slipped away silently using Stealth Sails.

Answer Key

The Cloud Engine Caper

Culprit: Piper Prop

Spark Glove · Cloud Shields · Right-handed · Sky Blue · Cheese Crackers

Trail: Start 21 → Clue 1 13 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE BANDIT DOES NOT USE SOLAR WINGS"

Round 2,651 to the nearest thousand = 3000 (T) · Round 9,025 to the nearest thousand = 9000 (G) · Round 711 to the nearest hundred = 700 (D) · Round 475 to the nearest hundred = 500 (H) · Round 2,894 to the nearest hundred = 2900 (B) · Round 46 to the nearest ten = 50 (L) · Round 5,212 to the nearest thousand = 5000 (O) · Round 93 to the nearest ten = 90 (U) · Round 110 to the nearest ten = 110 (W) · Round 1,143 to the nearest hundred = 1100 (N) · Round 1,256 to the nearest hundred = 1300 (E) · Round 434 to the nearest ten = 430 (I) · Round 6,798 to the nearest thousand = 7000 (A) · Round 324 to the nearest hundred = 300 (S) · Round 2,305 to the nearest hundred = 2300 (R)

Clue 2 (Word problems): "RIGHT HANDED"

There were 58 spyglass. 3 were used up. How many spyglass are left? = 55 (R) · There were 99 cloud bottle. 30 were used up. How many cloud bottle are left? = 69 (A) · There were 38 compass. 7 were used up. How many compass are left? = 31 (G) · Flight Cadet lined up 5 rows of 8 spyglass. How many spyglass in all? = 40 (N) · Flight Cadet lined up 7 rows of 4 cloud bottle. How many cloud bottle in all? = 28 (T) · Flight Cadet lined up 12 rows of 3 brass gear. How many brass gear in all? = 36 (I) · Flight Cadet found 7 sky map yesterday and 71 more today. How many sky map in all? = 78 (H)

Clue 3 (Addition): "ORANGE CRACKER CRUMBS WERE ON THE SEAT"

$3951 + 1966 = 5917$ (O) · $1390 + 829 = 2219$ (G) · $4719 + 5040 = 9759$ (A) · $6330 + 2712 = 9042$ (N) · $2472 + 2192 = 4664$ (H) · $2473 + 3589 = 6062$ (R) · $1344 + 666 = 2010$ (B) · $2540 + 1569 = 4109$ (U) · $3627 + 1931 = 5558$ (K) · $2124 + 2202 = 4326$ (E) · $1632 + 1237 = 2869$ (M) · $3467 + 1616 = 5083$ (W) · $1807 + 2750 = 4557$ (S) · $4266 + 1897 = 6163$ (T) · $4720 + 3372 = 8092$ (C)

Clue 4 (Subtraction): "THE SNAPPED STRAP WAS A SKY BLUE COLOR"

$4014 - 2699 = 1315$ (T) · $4390 - 294 = 4096$ (N) · $11856 - 3251 = 8605$ (P) · $7644 - 2333 = 5311$ (U) · $10564 - 3337 = 7227$ (E) · $4480 - 1216 = 3264$ (B) · $7247 - 51 = 7196$ (C) · $3392 - 331 = 3061$ (Y) · $3432 - 2098 = 1334$ (D) · $4985 - 3726 = 1259$ (L) · $4836 - 401 = 4435$ (W) · $6462 - 1281 = 5181$ (A) · $12549 - 4099 = 8450$ (R) · $7281 - 4275 = 3006$ (S) · $4212 - 2219 = 1993$ (K) · $5826 - 4368 = 1458$ (O) · $8732 - 2564 = 6168$ (H)

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

$84 \div 7 = 12$ · $35 \div 7 = 5$ · $22 \div 11 = 2$ · $7 \div 1 = 7$ · $6 \div 6 = 1$ · $18 \div 2 = 9$ · $12 \div 2 = 6$ · $88 \div 8 = 11$ · $80 \div 10 = 8$ · $50 \div 5 = 10$ · $27 \div 9 = 3$