



The Great Sky Dock Caper

Grade 4 math · Multiplication, Word problems, Multi-step word problems, Rounding, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

The Golden Compass of Altura has been swiped from the Sky Docks! The Chief Aeronaut needs your help to track down the culprit. A sneaky Sky Bandit escaped on a wind-glider, leaving a trail of clues floating in the clouds. Grab your flight goggles and solve the math puzzles to catch the thief!

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	FLIGHT GEAR	BELT GADGET	HANDEDNESS	HAIR EVIDENCE	KNOWN WEAKNESS
Finn Float	Jet Pack	Sonic Whistle	Left Handed	Golden Blonde Strands	Stops For Snacks
Miles High	Jet Pack	Smoke Bombs	Right Handed	Dusty Brown Fibers	Allergic To Flowers
Hazel Cloud	Turbo Boots	Decoy Balloon	Left Handed	Golden Blonde Strands	Allergic To Flowers
Barnaby Blue	Cloud Stealth	Net Launcher	Left Handed	Golden Blonde Strands	Stops For Snacks
Daisy Drift	Cloud Stealth	Net Launcher	Right Handed	Bright Red Strands	Stops For Snacks
Kit Compass	Cloud Stealth	Net Launcher	Right Handed	Golden Blonde Strands	Stops For Snacks
Dashiell Dash	Wind Gliding	Decoy Balloon	Left Handed	Dusty Brown Fibers	Stops For Snacks
Brooke Breeze	Turbo Boots	Net Launcher	Left Handed	Golden Blonde Strands	Allergic To Flowers
Captain Cody	Jet Pack	Smoke Bombs	Right Handed	Dusty Brown Fibers	Stops For Snacks
Orville Orbit	Wind Gliding	Sonic Whistle	Right Handed	Golden Blonde Strands	Stops For Snacks
Buster Balloon	Jet Pack	Net Launcher	Left Handed	Bright Red Strands	Allergic To Flowers
Aero Arthur	Jet Pack	Sonic Whistle	Right Handed	Bright Red Strands	Fears Loud Noises
Amelia Air	Turbo Boots	Net Launcher	Left Handed	Golden Blonde Strands	Fears Loud Noises
Sasha Soar	Wind Gliding	Sonic Whistle	Left Handed	Dusty Brown Fibers	Allergic To Flowers
Wendy Wing	Wind Gliding	Compass Radar	Left Handed	Golden Blonde Strands	Stops For Snacks
Rusty Rotor	Grappling Hook	Compass Radar	Left Handed	Bright Red Strands	Stops For Snacks
Zelda Zephyr	Wind Gliding	Decoy Balloon	Left Handed	Golden Blonde Strands	Stops For Snacks
Skyler Swift	Wind Gliding	Decoy Balloon	Left Handed	Dusty Brown Fibers	Fears Loud Noises
Skylor Storm	Wind Gliding	Net Launcher	Left Handed	Golden Blonde Strands	Stops For Snacks
Jet Jag	Grappling Hook	Smoke Bombs	Left Handed	Bright Red Strands	Stops For Snacks
Penny Pilot	Wind Gliding	Net Launcher	Right Handed	Bright Red Strands	Stops For Snacks

CLUE 1

Multiplication facts (1-12)

The Cloud Patrol had to count the fuel crates in three different hangars and subtract the leaked barrels to get the final passcode. This unlocked the first sky-chest!

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

[illegible]

$$5 \times 11 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$11 \times 12 = \boxed{} \rightarrow \boxed{0}$$

$$7 \times 2 = \boxed{} \rightarrow \boxed{\text{N}}$$

$11 \times 11 = \boxed{} \rightarrow \boxed{\text{L}}$

$$8 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{U}}$$

$11 \times 9 = \boxed{} \rightarrow \mathbf{E}$

$6 \times 3 = \square \rightarrow \mathbf{C}$

$$2 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$11 \times 4 = \square \rightarrow \mathbf{D}$

$12 \times 2 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$9 \times 9 = \square \rightarrow \mathbf{H}$

$$10 \times 10 = \boxed{} \rightarrow \boxed{\mathbf{B}}$$

$5 \times 3 = \boxed{} \rightarrow \boxed{}$

$12 \times 6 = \boxed{} \rightarrow \boxed{\text{Y}}$

Scratch space:

CLUE 2

Word problems

Barnaby solved a puzzle about sharing repair tools among the fleet to open the cargo hold door and find a secret notebook.

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 .

42
8
17
11
73
79
26
8

Barnaby lined up 7 rows of 6 windmaps. How many windmaps in all?

Answer: → L

Barnaby lined up 2 rows of 4 goggles. How many goggles in all?

Answer: → E

Barnaby found 43 propellers yesterday and 36 more today. How many propellers in all?

Answer: → A

There were 78 propellers. 5 were used up. How many propellers are left?

Answer: → H

There were 36 windmaps. 10 were used up. How many windmaps are left?

Answer: → N

There were 34 windmaps. 17 were used up. How many windmaps are left?

Answer: → F

Barnaby found 8 sandbags yesterday and 3 more today. How many sandbags in all?

Answer: → T

Scratch space:

CLUE 3

Multi-step word problems

To start up the giant radar, we had to count the light bulbs arranged in five neat rows of eight. This activated the tracking screen!

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

Someone scared the villain off with

S				S				S		A	C	K	S
15	54	72	69	15	80	72	81	15	23				15

There were 168 compasses in all. 3 Cloud Patrol used 26 compasses each. The other 6 Cloud Patrol shared the rest equally. How many compasses did each of the other Cloud Patrol get?

Answer: → **S**

Barnaby collected 122 windmaps in the morning and 22 windmaps in the afternoon, then split them equally among 2 Cloud Patrol. How many windmaps did each get?

Answer: → **O**

There were 82 goggles in all. 1 Cloud Patrol used 36 goggles each. The other 2 Cloud Patrol shared the rest equally. How many goggles did each of the other Cloud Patrol get?

Answer: → **N**

There were 303 goggles in all. 33 goggles were set aside. The rest were shared equally among 5 Cloud Patrol. How many goggles did each get?

Answer: → **T**

There were 843 goggles in all. 33 goggles were set aside. The rest were shared equally among 10 Cloud Patrol. How many goggles did each get?

Answer: → **R**

Barnaby earned 5 goggles in each of 4 rounds, plus 56 bonus goggles. Then 7 goggles were lost. How many goggles are left?

Answer: → **P**

There were 757 compasses in all. 37 compasses were set aside. The rest were shared equally among 9 Cloud Patrol. How many compasses did each get?

Answer: → **F**

Scratch space:

CLUE 4 Rounding

The broken altimeter only shows rounded numbers to the nearest ten. We estimated our height to read the blurry message on the screen!

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

W																	
20	1300	30	4300	170	50	900	370	430	70	50	290	300	4300	7000	900	1300	50
1700	7000	4300	50	900	1300	430	200	70	5000								

Round 18 to the nearest ten → **W**

Round 238 to the nearest hundred → **A**

Round 291 to the nearest ten → **Y**

Round 69 to the nearest ten → **I**

Round 931 to the nearest hundred → **D**

Round 4,264 to the nearest hundred → **O**

Round 1,348 to the nearest hundred → **E**

Round 370 to the nearest ten → **S**

Round 308 to the nearest hundred → **G**

Round 5,370 to the nearest thousand → **R**

Round 53 to the nearest ten → **N**

Round 166 to the nearest ten → **U**

Round 1,660 to the nearest hundred → **B**

Round 431 to the nearest ten → **H**

Round 7,450 to the nearest thousand → **L**

Round 32 to the nearest ten → **F**

Scratch space:

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

We knew the balloon ship needed ten sandbags to stay level, but only seven were left. Finding the missing amount pointed us right to the bandit!

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:

$6 + \underline{\quad} = 9$

$28 + \underline{\quad} = 29$

$2 + \underline{\quad} = 10$

$12 + \underline{\quad} = 14$

$12 + \underline{\quad} = 24$

$28 + \underline{\quad} = 38$

$4 + \underline{\quad} = 13$

$6 + \underline{\quad} = 13$

$20 + \underline{\quad} = 26$

$37 + \underline{\quad} = 42$

$21 + \underline{\quad} = 25$

Step 2 - cross out the sentence with each answer:

1. The villain blends into the mist, then fires a rope into the clouds.
2. The villain zooms past the wind turbines, then tosses a fake balloon.
3. The villain zooms past the wind turbines, then tracks the wind currents.
4. The villain zooms past the wind turbines, then drops a screen of fog.
5. The villain blasts into the sky, then drops a screen of fog.
6. The villain blasts into the sky, then tracks the wind currents.
7. The villain blends into the mist, then tracks the wind currents.
8. The villain blasts into the sky, then calls a friendly sky-whale.
9. The villain leaps off the wooden dock, then drops a screen of fog.
10. The villain blends into the mist, then calls a friendly sky-whale.
11. The villain zooms past the wind turbines, then fires a rope into the clouds.
12. The villain zooms past the wind turbines, then calls a friendly sky-whale.

Answer Key

The Great Sky Dock Caper

Culprit: Skylor Storm

Wind Gliding · Net Launcher · Left Handed · Golden Blonde Strands · Stops For Snacks

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE BANDIT DOES NOT USE A DECOY BALLOON"

$5 \times 11 = 55$ (T) · $11 \times 12 = 132$ (O) · $7 \times 2 = 14$ (N) · $11 \times 11 = 121$ (L) · $8 \times 11 = 88$ (U) · $11 \times 9 = 99$ (E) · $6 \times 3 = 18$ (C) · $2 \times 11 = 22$ (S) · $11 \times 4 = 44$ (D) · $12 \times 2 = 24$ (A) · $9 \times 9 = 81$ (H) · $10 \times 10 = 100$ (B) · $5 \times 3 = 15$ (I) · $12 \times 6 = 72$ (Y)

Clue 2 (Word problems): "LEFT HANDED"

Barnaby lined up 7 rows of 6 windmaps. How many windmaps in all? = 42 (L) · Barnaby lined up 2 rows of 4 goggles. How many goggles in all? = 8 (E) · Barnaby found 43 propellers yesterday and 36 more today. How many propellers in all? = 79 (A) · There were 78 propellers. 5 were used up. How many propellers are left? = 73 (H) · There were 36 windmaps. 10 were used up. How many windmaps are left? = 26 (N) · There were 34 windmaps. 17 were used up. How many windmaps are left? = 17 (F) · Barnaby found 8 sandbags yesterday and 3 more today. How many sandbags in all? = 11 (T)

Clue 3 (Multi-step word problems): "STOPS FOR SNACKS"

There were 168 compasses in all. 3 Cloud Patrol used 26 compasses each. The other 6 Cloud Patrol shared the rest equally. How many compasses did each of the other Cloud Patrol get? = 15 (S) · Barnaby collected 122 windmaps in the morning and 22 windmaps in the afternoon, then split them equally among 2 Cloud Patrol. How many windmaps did each get? = 72 (O) · There were 82 goggles in all. 1 Cloud Patrol used 36 goggles each. The other 2 Cloud Patrol shared the rest equally. How many goggles did each of the other Cloud Patrol get? = 23 (N) · There were 303 goggles in all. 33 goggles were set aside. The rest were shared equally among 5 Cloud Patrol. How many goggles did each get? = 54 (T) · There were 843 goggles in all. 33 goggles were set aside. The rest were shared equally among 10 Cloud Patrol. How many goggles did each get? = 81 (R) · Barnaby earned 5 goggles in each of 4 rounds, plus 56 bonus goggles. Then 7 goggles were lost. How many goggles are left? = 69 (P) · There were 757 compasses in all. 37 compasses were set aside. The rest were shared equally among 9 Cloud Patrol. How many compasses did each get? = 80 (F)

Clue 4 (Rounding): "WE FOUND SHINY GOLDEN BLONDE HAIR"

Round 18 to the nearest ten = 20 (W) · Round 238 to the nearest hundred = 200 (A) · Round 291 to the nearest ten = 290 (Y) · Round 69 to the nearest ten = 70 (I) · Round 931 to the nearest hundred = 900 (D) · Round 4,264 to the nearest hundred = 4300 (O) · Round 1,348 to the nearest hundred = 1300 (E) · Round 370 to the nearest ten = 370 (S) · Round 308 to the nearest hundred = 300 (G) · Round 5,370 to the nearest thousand = 5000 (R) · Round 53 to the nearest ten = 50 (N) · Round 166 to the nearest ten = 170 (U) · Round 1,660 to the nearest hundred = 1700 (B) · Round 431 to the nearest ten = 430 (H) · Round 7,450 to the nearest thousand = 7000 (L) · Round 32 to the nearest ten = 30 (F)

Clue 5 (Missing addends): surviving statement is box 11 → Skylor Storm

$6 + \underline{\quad} = 9 = 3$ · $28 + \underline{\quad} = 29 = 1$ · $2 + \underline{\quad} = 10 = 8$ · $12 + \underline{\quad} = 14 = 2$ · $12 + \underline{\quad} = 24 = 12$ · $28 + \underline{\quad} = 38 = 10$ · $4 + \underline{\quad} = 13 = 9$ · $6 + \underline{\quad} = 13 = 7$ · $20 + \underline{\quad} = 26 = 6$ · $37 + \underline{\quad} = 42 = 5$ · $21 + \underline{\quad} = 25 = 4$