



The Mystery of the Missing Cloud Compass

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

Detective: _____ Date: _____

Someone snuck onto the airship flagship and took the golden cloud compass! The Head Navigator needs your help to figure out which sky bandit pulled off this sneaky heist before the ship sails.

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	SPECIAL GEAR	COMPANION ANIMAL	GOGGLE STANCE	CAP COLOR	DISTRACTION
Cloudy Chris	Rope Launcher	Falcon	Goggles On Head	Blue Cap	Shiny Coins
Glide Gavin	Rope Launcher	Squirrel	Goggles On Neck	Green Cap	Fresh Fruit
Gale Greta	Glider Wings	Falcon	Goggles On Neck	Green Cap	Shiny Coins
Skye Spencer	Jet Boots	Parrot	Goggles On Neck	Green Cap	Whistle Sound
Gusty Gabe	Jet Boots	Lizard	Goggles On Head	Blue Cap	Shiny Coins
Avian Ava	Jet Boots	Monkey	Goggles On Neck	Green Cap	Shiny Coins
Orbit Maya	Grappling Hook	Parrot	Goggles On Head	Red Cap	Shiny Coins
Pilot Penny	Glider Wings	Lizard	Goggles On Head	Red Cap	Whistle Sound
Aero Andy	Rope Launcher	Squirrel	Goggles On Head	Red Cap	Shiny Coins
Barnaby B	Grappling Hook	Lizard	Goggles On Neck	Green Cap	Shiny Coins
Skyline Sally	Grappling Hook	Parrot	Goggles On Neck	Green Cap	Fresh Fruit
Pip Parker	Jet Boots	Lizard	Goggles On Head	Red Cap	Fresh Fruit
Ranger Rick	Compass Ring	Lizard	Goggles On Neck	Green Cap	Shiny Coins
Stratus Leo	Jet Boots	Parrot	Goggles On Neck	Blue Cap	Shiny Coins
Breeze Bella	Rope Launcher	Parrot	Goggles On Head	Green Cap	Fresh Fruit
Captain Cora	Glider Wings	Lizard	Goggles On Head	Green Cap	Shiny Coins
Hover Hannah	Grappling Hook	Falcon	Goggles On Head	Blue Cap	Whistle Sound
Drafty Dan	Glider Wings	Parrot	Goggles On Head	Blue Cap	Whistle Sound
Radar Ruby	Glider Wings	Monkey	Goggles On Neck	Green Cap	Shiny Coins
Cirrus Chloe	Glider Wings	Lizard	Goggles On Neck	Blue Cap	Whistle Sound
Scout Sam	Grappling Hook	Squirrel	Goggles On Head	Red Cap	Whistle Sound

CLUE 1

Multiplication facts (1-12)

The navigators are packing crate boxes of sky maps into equal rows.

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

T																T
9	88	42	7	22	45	45	81	22	108	27	30	42	80	108	30	9

88	81	7	42	81	18	81	45	40	30	108	

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

$11 \times 8 = \square \rightarrow \boxed{\text{H}}$

$6 \times 7 = \square \rightarrow \boxed{\text{E}}$

$1 \times 7 = \square \rightarrow \boxed{\text{V}}$

$6 \times 5 = \square \rightarrow \boxed{\text{O}}$

$8 \times 10 = \square \rightarrow \boxed{\text{S}}$

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

$3 \times 6 = \square \rightarrow \boxed{\text{F}}$

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

$5 \times 9 = \square \rightarrow \boxed{\text{L}}$

$9 \times 3 = \square \rightarrow \boxed{\text{D}}$

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

$9 \times 9 = \square \rightarrow \boxed{\text{A}}$

Scratch space:

CLUE 2
Rounding

The altimeter screen shows a rough height rounded to the nearest hundred.

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

A									A								
50	20	230	9000	30	700	1100	1100	1100	50	20	170	7000	170	170	4300	700	1100
7000	30	9000	2900	700	30	700	110	900									

Round 52 to the nearest ten → **A**

Round 106 to the nearest ten → **C**

Round 232 to the nearest ten → **I**

Round 914 to the nearest hundred → **K**

Round 168 to the nearest ten → **G**

Round 23 to the nearest ten → **W**

Round 2,880 to the nearest hundred → **H**

Round 28 to the nearest ten → **N**

Round 4,262 to the nearest hundred → **L**

Round 7,039 to the nearest thousand → **O**

Round 678 to the nearest hundred → **E**

Round 8,754 to the nearest thousand → **T**

Round 1,069 to the nearest hundred → **S**

Scratch space:

CLUE 3 **Addition**

The crew tallied up all the extra helium canisters found on the dock.

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

Diagram showing the arrangement of 20 numbered boxes in two rows. The top row contains 16 boxes, and the bottom row contains 4 boxes. The boxes are numbered 7404, 5188, 5693, 4423, 9204, 7775, 4977, 7404, 5245, 9345, 7775, 8570, 8570, 5693, 5245, 4423, 5188, 4050, 2553, 5033. The boxes with numbers 7404 are highlighted in orange.

$$3153 + 4251 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$2352 + 2681 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$3233 + 2460 = \boxed{} \rightarrow \boxed{\text{E}}$

$$3033 + 2155 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$2203 + 1847 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$3785 + 3990 = \boxed{} \rightarrow \boxed{0}$$

$$3189 + 1788 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$2100 + 3145 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$5633 + 2937 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$3682 + 5522 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$6358 + 2987 = \boxed{} \rightarrow \boxed{\text{R}}$$

$1107 + 1446 = \boxed{} \rightarrow \boxed{\text{N}}$

$3982 + 4476 = \boxed{} \rightarrow \boxed{\text{A}}$

$$2133 + 2290 = \boxed{} \rightarrow \boxed{\text{S}}$$

Scratch space:

CLUE 4

Subtraction

The station guard checked how many rope bundles were left after the getaway.

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

G																			
2658	1257	7296	7296	6133	5554	1408	6018	7589	5449	5541	7296	1257	6118	4629	7296	1257	7296		
5735	7296	7589	8187	1408	8187	8187	7678	7296	6118	5554	7296	6133	7296						

$7425 - 4767 = \square \rightarrow \text{G}$

$5957 - 1328 = \square \rightarrow \text{W}$

$7825 - 1707 = \square \rightarrow \text{S}$

$8629 - 2611 = \square \rightarrow \text{P}$

$9287 - 3552 = \square \rightarrow \text{L}$

$2945 - 1537 = \square \rightarrow \text{A}$

$10041 - 4500 = \square \rightarrow \text{B}$

$8490 - 1194 = \square \rightarrow \text{E}$

$9246 - 3113 = \square \rightarrow \text{N}$

$8969 - 1380 = \square \rightarrow \text{F}$

$10202 - 4753 = \square \rightarrow \text{I}$

$10061 - 2383 = \square \rightarrow \text{H}$

$3875 - 2618 = \square \rightarrow \text{R}$

$8625 - 438 = \square \rightarrow \text{T}$

$6836 - 1282 = \square \rightarrow \text{C}$

Scratch space:

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

The scouts split the rescue snack bars equally among their search teams.

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:

$10 \div 10 = \square$

$2 \div 1 = \square$

$45 \div 5 = \square$

$54 \div 9 = \square$

$12 \div 3 = \square$

$36 \div 12 = \square$

$144 \div 12 = \square$

$48 \div 6 = \square$

$49 \div 7 = \square$

$132 \div 12 = \square$

$40 \div 8 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain soared over with glider wings, then escaped with a monkey.
2. The villain guided the path with a compass ring, then escaped with a lizard.
3. The villain snared the prize with a rope launcher, then escaped with a monkey.
4. The villain boosted away on jet boots, then escaped with a falcon.
5. The villain boosted away on jet boots, then escaped with a squirrel.
6. The villain boosted away on jet boots, then escaped with a parrot.
7. The villain snared the prize with a rope launcher, then escaped with a parrot.
8. The villain boosted away on jet boots, then escaped with a lizard.
9. The villain boosted away on jet boots, then escaped with a monkey.
10. The villain swung across with a grappling hook, then escaped with a lizard.
11. The villain snared the prize with a rope launcher, then escaped with a falcon.
12. The villain soared over with glider wings, then escaped with a lizard.

Answer Key

The Mystery of the Missing Cloud Compass

Culprit: Barnaby B

Grappling Hook · Lizard · Goggles On Neck · Green Cap · Shiny Coins

Trail: Start 21 → Clue 1 18 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT HAVE A FALCON"

$3 \times 3 = 9$ (T) · $11 \times 8 = 88$ (H) · $6 \times 7 = 42$ (E) · $1 \times 7 = 7$ (V) · $6 \times 5 = 30$ (O) · $8 \times 10 = 80$ (S) · $2 \times 11 = 22$ (I) · $3 \times 6 = 18$ (F) · $12 \times 9 = 108$ (N) · $5 \times 9 = 45$ (L) · $9 \times 3 = 27$ (D) · $4 \times 10 = 40$ (C) · $9 \times 9 = 81$ (A)

Clue 2 (Rounding): "A WITNESS SAW GOGGLES ON THE NECK"

Round 52 to the nearest ten = 50 (A) · Round 106 to the nearest ten = 110 (C) · Round 232 to the nearest ten = 230 (I) · Round 914 to the nearest hundred = 900 (K) · Round 168 to the nearest ten = 170 (G) · Round 23 to the nearest ten = 20 (W) · Round 2,880 to the nearest hundred = 2900 (H) · Round 28 to the nearest ten = 30 (N) · Round 4,262 to the nearest hundred = 4300 (L) · Round 7,039 to the nearest thousand = 7000 (O) · Round 678 to the nearest hundred = 700 (E) · Round 8,754 to the nearest thousand = 9000 (T) · Round 1,069 to the nearest hundred = 1100 (S)

Clue 3 (Addition): "THE SCOUT DROPPED SHINY COINS TO ESCAPE"

$3153 + 4251 = 7404$ (T) · $2352 + 2681 = 5033$ (Y) · $3233 + 2460 = 5693$ (E) · $3033 + 2155 = 5188$ (H) · $2203 + 1847 = 4050$ (I) · $3785 + 3990 = 7775$ (O) · $3189 + 1788 = 4977$ (U) · $2100 + 3145 = 5245$ (D) · $5633 + 2937 = 8570$ (P) · $3682 + 5522 = 9204$ (C) · $6358 + 2987 = 9345$ (R) · $1107 + 1446 = 2553$ (N) · $3982 + 4476 = 8458$ (A) · $2133 + 2290 = 4423$ (S)

Clue 4 (Subtraction): "GREEN CAP FIBERS WERE LEFT AT THE SCENE"

$7425 - 4767 = 2658$ (G) · $5957 - 1328 = 4629$ (W) · $7825 - 1707 = 6118$ (S) · $8629 - 2611 = 6018$ (P) · $9287 - 3552 = 5735$ (L) · $2945 - 1537 = 1408$ (A) · $10041 - 4500 = 5541$ (B) · $8490 - 1194 = 7296$ (E) · $9246 - 3113 = 6133$ (N) · $8969 - 1380 = 7589$ (F) · $10202 - 4753 = 5449$ (I) · $10061 - 2383 = 7678$ (H) · $3875 - 2618 = 1257$ (R) · $8625 - 438 = 8187$ (T) · $6836 - 1282 = 5554$ (C)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Barnaby B

$10 \div 10 = 1$ · $2 \div 1 = 2$ · $45 \div 5 = 9$ · $54 \div 9 = 6$ · $12 \div 3 = 4$ · $36 \div 12 = 3$ · $144 \div 12 = 12$ · $48 \div 6 = 8$ · $49 \div 7 = 7$ · $132 \div 12 = 11$ · $40 \div 8 = 5$