The Mystery of Cloud Archipelago

Grade 4 math · Multiplication, Addition, Skip counting, Rounding, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

The golden star globe has vanished from the high floating dock! Someone snuck into the flight deck while the Cloud Explorers were away.

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.

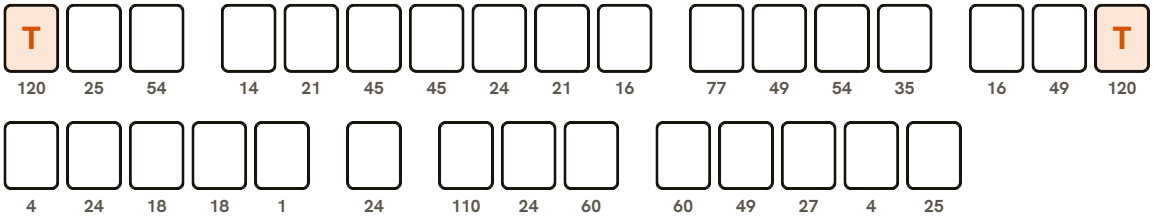
NAME	SPECIAL GADGET	CARRIED ITEM	DOMINANT HAND	HEADGEAR	SECRET WEAKNESS
Tracker May	Jet Boots	Signal Flare	Right-handed	Blue Cap	Loud Whistles
Pilot Felix	Grappling Hook	Map Pouch	Left-handed	Red Scarf	Loud Whistles
Sailor Tessa	Jet Boots	Brass Spyglass	Left-handed	Green Bandana	Loud Whistles
Tracker Nina	Jet Boots	Map Pouch	Right-handed	Blue Cap	Loud Whistles
Lookout Maya	Smoke Bombs	Compass Badge	Right-handed	Blue Cap	Loud Whistles
Aviator Pip	Grappling Hook	Brass Spyglass	Right-handed	Blue Cap	Loud Whistles
Captain Vera	Wind Whistle	Map Pouch	Right-handed	Blue Cap	Fresh Lemonade
Lookout Nora	Wind Whistle	Brass Spyglass	Right-handed	Red Scarf	Fresh Lemonade
Sky Captain Jack	Grappling Hook	Map Pouch	Right-handed	Green Bandana	Fresh Lemonade
Explorer Finn	Wind Whistle	Map Pouch	Right-handed	Red Scarf	Fresh Lemonade
Sailor Ruby	Glider Wings	Brass Spyglass	Right-handed	Blue Cap	Loud Whistles
Explorer Sam	Jet Boots	Bronze Whistle	Left-handed	Blue Cap	Loud Whistles
Captain Cleo	Grappling Hook	Map Pouch	Left-handed	Blue Cap	Bright Flashlights
Navigator Rita	Grappling Hook	Map Pouch	Left-handed	Red Scarf	Fresh Lemonade
Pilot Bruno	Jet Boots	Bronze Whistle	Left-handed	Green Bandana	Loud Whistles
Captain Barnaby	Smoke Bombs	Bronze Whistle	Left-handed	Green Bandana	Bright Flashlights
Navigator Iris	Jet Boots	Signal Flare	Right-handed	Red Scarf	Fresh Lemonade
Scout Penny	Grappling Hook	Bronze Whistle	Right-handed	Green Bandana	Loud Whistles
Flyer Daisy	Smoke Bombs	Signal Flare	Right-handed	Blue Cap	Fresh Lemonade
Flyer Gus	Glider Wings	Bronze Whistle	Right-handed	Red Scarf	Bright Flashlights
First Mate Leo	Jet Boots	Compass Badge	Left-handed	Red Scarf	Loud Whistles

make your own at mathcrackers.com

CLUE 1 Multiplication facts (1-12)

> You inspect four supply crates, each packed with neat rows of airship gear.

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



12 × 10 = ☐ → T	4 × 1 = ☐ → C	5 × 5 = ☐ → H	
9 × 3 = ☐ → U	7 × 5 = ☐ → S	7 × 7 = ☐ → O	9 × 2 = ☐ → R
7 × 3 = ☐ → I	10 × 11 = ☐ → M	6 × 9 = ☐ → E	
2 × 8 = ☐ → N	2 × 7 = ☐ → V	5 × 9 = ☐ → L	1 × 1 = ☐ → Y
11 × 7 = ☐ → D	12 × 2 = ☐ → A	5 × 12 = ☐ → P	

Scratch space:

CLUE 2 Addition

You tally up all the brass compasses found inside the control tower.

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



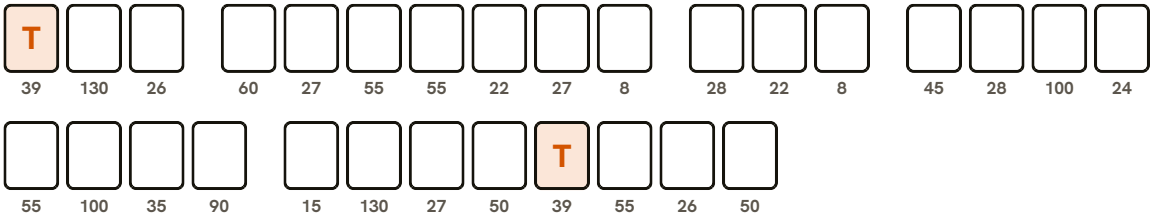
3144 + 1908 = ☐ → W	3496 + 6240 = ☐ → P	2755 + 3918 = ☐ → I
1841 + 2548 = ☐ → E	3062 + 4719 = ☐ → O	4620 + 2315 = ☐ → A
6066 + 3585 = ☐ → S	3020 + 6233 = ☐ → T	1949 + 3022 = ☐ → N
4311 + 5023 = ☐ → G	2390 + 1726 = ☐ → R	1533 + 1181 = ☐ → D
2345 + 4622 = ☐ → H		

Scratch space:

CLUE 3 Skip counting

You follow the muddy boot prints spaced out in steady steps along the dock.

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



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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 ☐ → N

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 ☐ → L

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 ☐ → I

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 ☐ → E

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 ☐ → O

Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 ☐ → W

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, ___, 27, 30 ☐ → M

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, ___, 60, 70 ☐ → S

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 ☐ → U

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 ☐ → F

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 ☐ → **R**

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

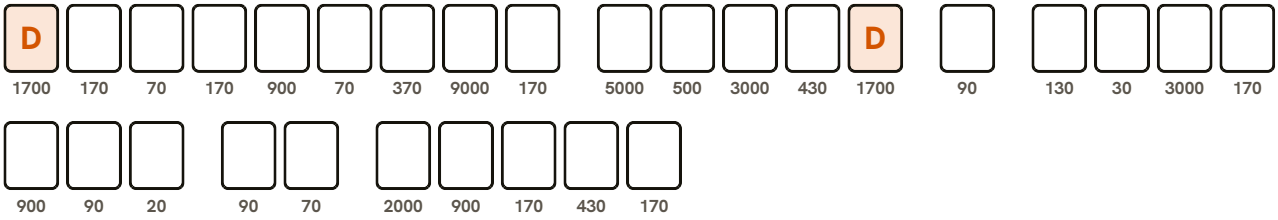
Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 ☐ → **D**

Scratch space:

CLUE 4 Rounding

The cloud radar screen only shows whole rounded distances for nearby flyers.

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



Round 1,724 to the nearest hundred ☐ → D

Round 17 to the nearest ten ☐ → P

Round 167 to the nearest ten ☐ → E

Round 4,501 to the nearest thousand ☐ → F

Round 530 to the nearest hundred ☐ → O

Round 71 to the nearest ten ☐ → T

Round 31 to the nearest ten ☐ → L

Round 2,549 to the nearest thousand ☐ → U

Round 88 to the nearest ten ☐ → A

Round 2,112 to the nearest thousand ☐ → S

Round 8,764 to the nearest thousand ☐ → V

Round 430 to the nearest ten ☐ → N

Round 131 to the nearest ten ☐ → B

Round 891 to the nearest hundred ☐ → C

Round 370 to the nearest ten ☐ → I

Scratch space:

CLUE 5 Missing addends - the last clue

You calculate how many extra energy crystals are needed to fill the vessel.

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:

23 + ___ = 33 ☐	39 + ___ = 42 ☐	6 + ___ = 11 ☐	35 + ___ = 37 ☐
2 + ___ = 3 ☐	38 + ___ = 45 ☐	18 + ___ = 22 ☐	17 + ___ = 25 ☐
9 + ___ = 15 ☐	37 + ___ = 49 ☐	38 + ___ = 49 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain soared across the sky island, then slung a heavy map pouch.
2. The villain blasted off with jet boots, then pinned on a brass compass badge.
3. The villain swung from the tall watchtower, then peered through a brass spyglass.
4. The villain tossed a thick smoke bomb, then tucked away a bronze whistle.
5. The villain soared across the sky island, then peered through a brass spyglass.
6. The villain tossed a thick smoke bomb, then fired a bright signal flare.
7. The villain swung from the tall watchtower, then tucked away a bronze whistle.
8. The villain blew a sharp wind whistle, then tucked away a bronze whistle.
9. The villain tossed a thick smoke bomb, then pinned on a brass compass badge.
10. The villain blasted off with jet boots, then fired a bright signal flare.
11. The villain blasted off with jet boots, then tucked away a bronze whistle.
12. The villain swung from the tall watchtower, then fired a bright signal flare.

TEACHER / PARENT

Answer Key

The Mystery of Cloud Archipelago

Culprit: Lookout Maya

Smoke Bombs · Compass Badge · Right-handed · Blue Cap · Loud Whistles

Trail: Start 21 → Clue 1 14 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT CARRY A MAP POUCH"

12 × 10 = 120 (T) · 4 × 1 = 4 (C) · 5 × 5 = 25 (H) · 9 × 3 = 27 (U) · 7 × 5 = 35 (S) · 7 × 7 = 49 (O) · 9 × 2 = 18 (R) · 7 × 3 = 21 (I) · 10 × 11 = 110 (M) · 6 × 9 = 54 (E) · 2 × 8 = 16 (N) · 2 × 7 = 14 (V) · 5 × 9 = 45 (L) · 1 × 1 = 1 (Y) · 11 × 7 = 77 (D) · 12 × 2 = 24 (A) · 5 × 12 = 60 (P)

Clue 2 (Addition): "WITNESS SAW RIGHT HANDED GRIP ON ROPE"

3144 + 1908 = 5052 (W) · 3496 + 6240 = 9736 (P) · 2755 + 3918 = 6673 (I) · 1841 + 2548 = 4389 (E) · 3062 + 4719 = 7781 (O) · 4620 + 2315 = 6935 (A) · 6066 + 3585 = 9651 (S) · 3020 + 6233 = 9253 (T) · 1949 + 3022 = 4971 (N) · 4311 + 5023 = 9334 (G) · 2390 + 1726 = 4116 (R) · 1533 + 1181 = 2714 (D) · 2345 + 4622 = 6967 (H)

Clue 3 (Skip counting): "THE VILLAIN RAN FROM LOUD WHISTLES"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 = 39 (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 2s. Fill the blank: 2, 4, 6, ___, 10, 12 = 8 (N) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (O) · Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 = 15 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, ___, 27, 30 = 24 (M) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, ___, 60, 70 = 50 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 = 35 (U) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, ___, 65, 70 = 60 (V) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 = 90 (D)

Clue 4 (Rounding): "DETECTIVE FOUND A BLUE CAP AT SCENE"

Round 1,724 to the nearest hundred = 1700 (D) · Round 17 to the nearest ten = 20 (P) · Round 167 to the nearest ten = 170 (E) · Round 4,501 to the nearest thousand = 5000 (F) · Round 530 to the nearest hundred = 500 (O) · Round 71 to the nearest ten = 70 (T) · Round 31 to the nearest ten = 30 (L) · Round 2,549 to the nearest thousand = 3000 (U) · Round 88 to the nearest ten = 90 (A) · Round 2,112 to the nearest thousand = 2000 (S) · Round 8,764 to the nearest thousand = 9000 (V) · Round 430 to the nearest ten = 430 (N) · Round 131 to the nearest ten = 130 (B) · Round 891 to the nearest hundred = 900 (C) · Round 370 to the nearest ten = 370 (I)

Clue 5 (Missing addends): surviving statement is box 9 → Lookout Maya

23 + ___ = 33 = 10 · 39 + ___ = 42 = 3 · 6 + ___ = 11 = 5 · 35 + ___ = 37 = 2 · 2 + ___ = 3 = 1 · 38 + ___ = 45 = 7 · 18 + ___ = 22 = 4 · 17 + ___ = 25 = 8 · 9 + ___ = 15 = 6 · 37 + ___ = 49 = 12 · 38 + ___ = 49 = 11