The Sky Citadel Sabotage

Grade 4 math · Multiplication, Rounding, Addition, Subtraction, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

A daring sky thief slipped into the Aerie Peak Airship Dock and stole the master navigation crystal! The Head Aeronaut needs your detective skills to decode emergency radio messages, analyze vault evidence, and track down the culprit.

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 thief is _____

Possible suspects

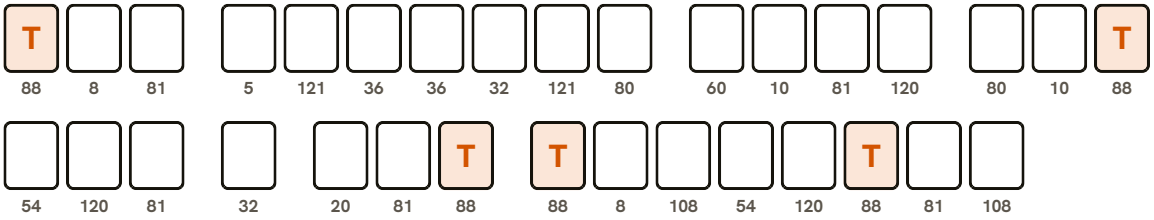
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	PRIMARY GEAR	FLIGHT PACK	DOMINANT HAND	GOGGLE STRAP	VULNERABILITY
Navigator Leo Frost	Flash Beacon	Turbo Prop	Left-Handed	Gold Straps	Loud Whistles
Scout Felix Vance	Smoke Bomb	Turbo Prop	Right-Handed	Silver Straps	Bright Lights
Officer Julian Hawk	Magnetic Boots	Feather Parachute	Right-Handed	Silver Straps	Bright Lights
Rigger Violet Palmer	Grapple Hook	Feather Parachute	Right-Handed	Silver Straps	Cold Gusts
Captain Silas Drake	Smoke Bomb	Feather Parachute	Left-Handed	Silver Straps	Cold Gusts
Engineer Maya Stone	Magnetic Boots	Feather Parachute	Left-Handed	Bronze Straps	Cold Gusts
Aeronaut Iris West	Smoke Bomb	Feather Parachute	Left-Handed	Bronze Straps	Loud Whistles
Aviator Nora Vale	Sonic Whistle	Feather Parachute	Left-Handed	Silver Straps	Bright Lights
Engineer Sadie Cloud	Grapple Hook	Jet Thruster	Right-Handed	Silver Straps	Cold Gusts
Scout Gemma Brooks	Grapple Hook	Jet Thruster	Left-Handed	Bronze Straps	Cold Gusts
Mechanic Rose Sterling	Smoke Bomb	Turbo Prop	Right-Handed	Silver Straps	Cold Gusts
Cadet Tessa Sky	Grapple Hook	Jet Thruster	Left-Handed	Bronze Straps	Loud Whistles
Mechanic Vance Cole	Flash Beacon	Solar Wings	Right-Handed	Gold Straps	Cold Gusts
Navigator Rowan Gale	Smoke Bomb	Wind Sail	Right-Handed	Gold Straps	Bright Lights
Pilot Jasper Reed	Flash Beacon	Feather Parachute	Left-Handed	Silver Straps	Loud Whistles
Commander Clara Finch	Sonic Whistle	Wind Sail	Right-Handed	Silver Straps	Cold Gusts
Cadet Toby Wren	Smoke Bomb	Wind Sail	Right-Handed	Silver Straps	Cold Gusts
Rigger Eli Mercer	Smoke Bomb	Jet Thruster	Left-Handed	Bronze Straps	Cold Gusts
Pilot Piper Paige	Sonic Whistle	Solar Wings	Right-Handed	Gold Straps	Loud Whistles
Captain Amelia Cross	Magnetic Boots	Wind Sail	Right-Handed	Silver Straps	Loud Whistles
Skyward Sam Hayes	Flash Beacon	Turbo Prop	Left-Handed	Bronze Straps	Loud Whistles

CLUE 1 Multiplication facts (1-12)

To unlock the first radio code, multiply the supply rows in the hangar grid.

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



8 × 11 = ☐ → T

6 × 9 = ☐ → U

12 × 3 = ☐ → L

9 × 9 = ☐ → E

5 × 1 = ☐ → V

9 × 12 = ☐ → R

10 × 12 = ☐ → S

8 × 10 = ☐ → N

8 × 4 = ☐ → A

5 × 12 = ☐ → D

1 × 8 = ☐ → H

5 × 2 = ☐ → O

5 × 4 = ☐ → J

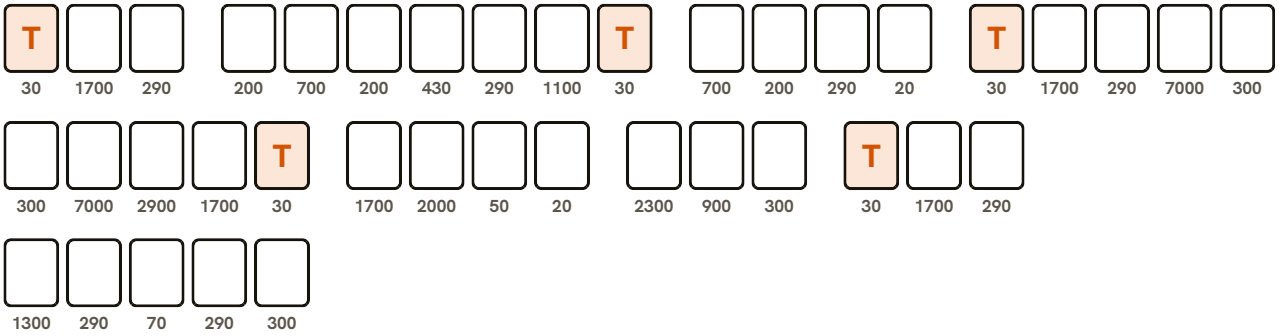
11 × 11 = ☐ → I

Scratch space:

CLUE 2 Rounding

The altitude scanner rounds flight coordinates to the nearest thousand to reveal the next clue.

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



Round 33 to the nearest ten ☐ → T

Round 7,255 to the nearest thousand ☐ → I

Round 667 to the nearest hundred ☐ → U

Round 1,568 to the nearest thousand ☐ → A

Round 2,274 to the nearest hundred ☐ → F

Round 1,680 to the nearest hundred ☐ → H

Round 433 to the nearest ten ☐ → P

Round 861 to the nearest hundred ☐ → O

Round 2,898 to the nearest hundred ☐ → G

Round 159 to the nearest hundred ☐ → S

Round 1,085 to the nearest hundred ☐ → C

Round 68 to the nearest ten ☐ → V

Round 1,265 to the nearest hundred ☐ → L

Round 256 to the nearest hundred ☐ → R

Round 291 to the nearest ten ☐ → E

Round 52 to the nearest ten ☐ → N

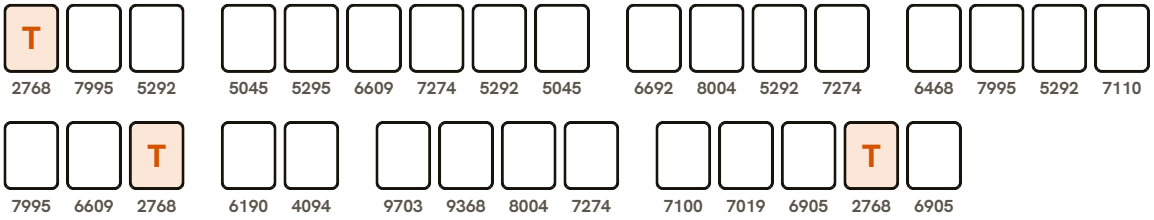
Round 23 to the nearest ten ☐ → D

Scratch space:

CLUE 3 Addition

Add up the total weight of the discarded escape gear to crack the third code.

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



1717 + 1051 = ☐ → T	3583 + 5785 = ☐ → O	3644 + 3261 = ☐ → S
2859 + 3750 = ☐ → I	2871 + 4239 = ☐ → N	4079 + 3925 = ☐ → L
3034 + 3985 = ☐ → U	4254 + 3741 = ☐ → H	3989 + 3111 = ☐ → G
2900 + 2392 = ☐ → E	3366 + 6337 = ☐ → C	3166 + 3526 = ☐ → F
3438 + 3836 = ☐ → D	3570 + 1725 = ☐ → A	2524 + 2521 = ☐ → R
2161 + 1933 = ☐ → Y	3752 + 2438 = ☐ → B	2970 + 3498 = ☐ → W

Scratch space:

CLUE 4 Subtraction

Subtract the remaining fuel cells from the original dock inventory to uncover the fourth message.

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



7222 - 1849 = ☐ → W	7589 - 4503 = ☐ → O	9166 - 1489 = ☐ → I
10279 - 3997 = ☐ → R	3740 - 579 = ☐ → A	12569 - 4577 = ☐ → H
8049 - 2339 = ☐ → P	8350 - 308 = ☐ → E	5021 - 1913 = ☐ → F
11550 - 3798 = ☐ → S	8376 - 890 = ☐ → U	11171 - 4438 = ☐ → T
9902 - 4580 = ☐ → G	8366 - 927 = ☐ → C	9446 - 1843 = ☐ → N
10694 - 2404 = ☐ → D	5149 - 96 = ☐ → L	11382 - 3589 = ☐ → V

Scratch space:

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

Divide the remaining air canisters equally among the patrol squads to reveal the final message.

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:

60 ÷ 5 = ☐ | 8 ÷ 1 = ☐ | 2 ÷ 2 = ☐ | 80 ÷ 8 = ☐ | 56 ÷ 8 = ☐

22 ÷ 11 = ☐ | 30 ÷ 6 = ☐ | 72 ÷ 8 = ☐ | 18 ÷ 6 = ☐ | 54 ÷ 9 = ☐

77 ÷ 7 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain used a sonic whistle, then unfurled a wind sail.
2. The villain triggered a flash beacon, then ignited a jet thruster.
3. The villain dropped a smoke bomb, then floated with a feather parachute.
4. The villain fired a grapple hook, then floated with a feather parachute.
5. The villain used a sonic whistle, then ignited a jet thruster.
6. The villain walked with magnetic boots, then unfurled a wind sail.
7. The villain used a sonic whistle, then spun a turbo prop.
8. The villain dropped a smoke bomb, then unfurled a wind sail.
9. The villain triggered a flash beacon, then deployed solar wings.
10. The villain used a sonic whistle, then floated with a feather parachute.
11. The villain fired a grapple hook, then ignited a jet thruster.
12. The villain dropped a smoke bomb, then spun a turbo prop.

TEACHER / PARENT

Answer Key

The Sky Citadel Sabotage

Culprit: Rigger Violet Palmer

Grapple Hook · Feather Parachute · Right-Handed · Silver Straps · Cold Gusts

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

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT USE A JET THRUSTER"

8 × 11 = 88 (T) · 6 × 9 = 54 (U) · 12 × 3 = 36 (L) · 9 × 9 = 81 (E) · 5 × 1 = 5 (V) · 9 × 12 = 108 (R) · 10 × 12 = 120 (S) · 8 × 10 = 80 (N) · 8 × 4 = 32 (A) · 5 × 12 = 60 (D) · 1 × 8 = 8 (H) · 5 × 2 = 10 (O) · 5 × 4 = 20 (J) · 11 × 11 = 121 (I)

Clue 2 (Rounding): "THE SUSPECT USED THEIR RIGHT HAND FOR THE LEVER"

Round 33 to the nearest ten = 30 (T) · Round 7,255 to the nearest thousand = 7000 (I) · Round 667 to the nearest hundred = 700 (U) · Round 1,568 to the nearest thousand = 2000 (A) · Round 2,274 to the nearest hundred = 2300 (F) · Round 1,680 to the nearest hundred = 1700 (H) · Round 433 to the nearest ten = 430 (P) · Round 861 to the nearest hundred = 900 (O) · Round 2,898 to the nearest hundred = 2900 (G) · Round 159 to the nearest hundred = 200 (S) · Round 1,085 to the nearest hundred = 1100 (C) · Round 68 to the nearest ten = 70 (V) · Round 1,265 to the nearest hundred = 1300 (L) · Round 256 to the nearest hundred = 300 (R) · Round 291 to the nearest ten = 290 (E) · Round 52 to the nearest ten = 50 (N) · Round 23 to the nearest ten = 20 (D)

Clue 3 (Addition): "THE RAIDER FLED WHEN HIT BY COLD GUSTS"

1717 + 1051 = 2768 (T) · 3583 + 5785 = 9368 (O) · 3644 + 3261 = 6905 (S) · 2859 + 3750 = 6609 (I) · 2871 + 4239 = 7110 (N) · 4079 + 3925 = 8004 (L) · 3034 + 3985 = 7019 (U) · 4254 + 3741 = 7995 (H) · 3989 + 3111 = 7100 (G) · 2900 + 2392 = 5292 (E) · 3366 + 6337 = 9703 (C) · 3166 + 3526 = 6692 (F) · 3438 + 3836 = 7274 (D) · 3570 + 1725 = 5295 (A) · 2524 + 2521 = 5045 (R) · 2161 + 1933 = 4094 (Y) · 3752 + 2438 = 6190 (B) · 2970 + 3498 = 6468 (W)

Clue 4 (Subtraction): "WE FOUND SILVER STRAPS CAUGHT ON THE HATCH"

7222 - 1849 = 5373 (W) · 7589 - 4503 = 3086 (O) · 9166 - 1489 = 7677 (I) · 10279 - 3997 = 6282 (R) · 3740 - 579 = 3161 (A) · 12569 - 4577 = 7992 (H) · 8049 - 2339 = 5710 (P) · 8350 - 308 = 8042 (E) · 5021 - 1913 = 3108 (F) · 11550 - 3798 = 7752 (S) · 8376 - 890 = 7486 (U) · 11171 - 4438 = 6733 (T) · 9902 - 4580 = 5322 (G) · 8366 - 927 = 7439 (C) · 9446 - 1843 = 7603 (N) · 10694 - 2404 = 8290 (D) · 5149 - 96 = 5053 (L) · 11382 - 3589 = 7793 (V)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Rigger Violet Palmer

60 ÷ 5 = 12 · 8 ÷ 1 = 8 · 2 ÷ 2 = 1 · 80 ÷ 8 = 10 · 56 ÷ 8 = 7 · 22 ÷ 11 = 2 · 30 ÷ 6 = 5 · 72 ÷ 8 = 9 · 18 ÷ 6 = 3 · 54 ÷ 9 = 6 · 77 ÷ 7 = 11