The Cloud Compass Heist

Grade 5 math · Addition, Fractions of a number, Order of operations, Multiplication, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone sneaked into the Navigation Tower and stole the ancient Golden Compass! Detectives must review the evidence to identify the rogue pilot before they escape into the clouds.

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

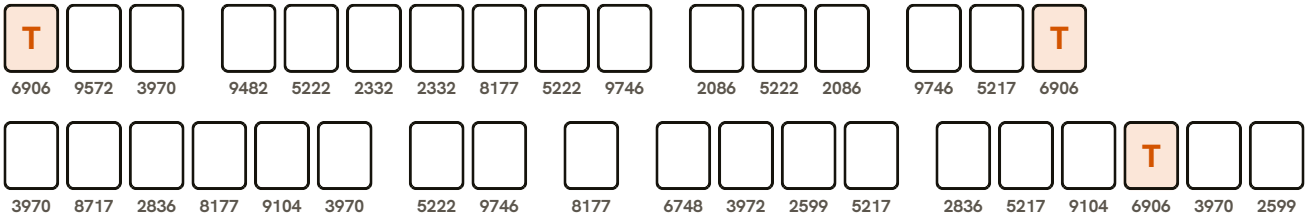
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	GADGET	VEHICLE	STANCE	SCARF COLOR	TRAP
Orville Cloud	Smoke Bomb	Solar Dirigible	Right Handed	Cobalt Blue	Bright Flash
Wilbur Cloud	Glider Pack	Steam Runner	Right Handed	Emerald Green	Sticky Net
Elena Rostova	Glider Pack	Solar Dirigible	Right Handed	Emerald Green	Bright Flash
Nora Sterling	Sonic Horn	Solar Dirigible	Left Handed	Emerald Green	Bright Flash
Dorian Drift	Sonic Horn	Solar Dirigible	Left Handed	Ruby Red	Sticky Net
Callum Mist	Grapple Hook	Solar Dirigible	Right Handed	Emerald Green	Bright Flash
Jasper Vance	Grapple Hook	Jet Biplane	Left Handed	Cobalt Blue	Loud Whistle
Amelia Skyward	Smoke Bomb	Solar Dirigible	Right Handed	Cobalt Blue	Sticky Net
Hazel Soar	Glider Pack	Solar Dirigible	Left Handed	Cobalt Blue	Sticky Net
Corin Aerie	Smoke Bomb	Solar Dirigible	Left Handed	Emerald Green	Bright Flash
Gideon Cross	Grapple Hook	Cloud Skiff	Right Handed	Cobalt Blue	Loud Whistle
Bram Tempest	Sonic Horn	Cloud Skiff	Right Handed	Cobalt Blue	Bright Flash
Lyra Cirrus	Glider Pack	Steam Runner	Right Handed	Ruby Red	Sticky Net
Tobias Zephyr	Glider Pack	Gyro Copter	Left Handed	Emerald Green	Bright Flash
Julian Nimbus	Grapple Hook	Solar Dirigible	Left Handed	Cobalt Blue	Bright Flash
Silas Vane	Sonic Horn	Solar Dirigible	Left Handed	Ruby Red	Loud Whistle
Rowan Gust	Smoke Bomb	Jet Biplane	Left Handed	Ruby Red	Bright Flash
Captain Barnaby	Grapple Hook	Steam Runner	Left Handed	Emerald Green	Bright Flash
Maren Gale	Glider Pack	Solar Dirigible	Left Handed	Emerald Green	Sticky Net
Talia Breeze	Magnet Glove	Gyro Copter	Left Handed	Cobalt Blue	Sticky Net
Finnian Drake	Magnet Glove	Solar Dirigible	Left Handed	Emerald Green	Bright Flash

CLUE 1 Addition

To calculate total flight hours logged last night, the airship warden added up all gate logs.

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



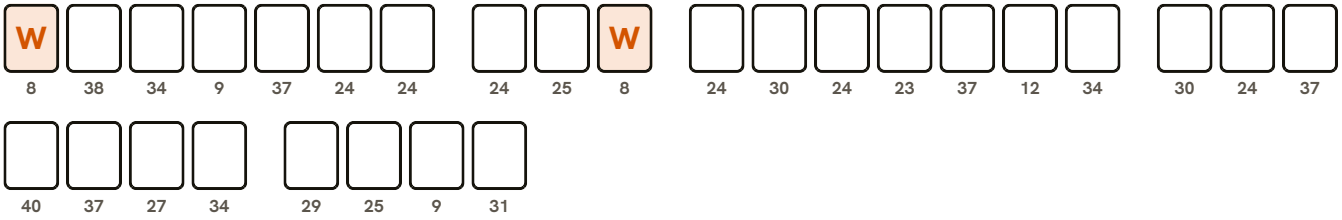
3902 + 3004 = ☐ → T	2470 + 1500 = ☐ → E	1038 + 1048 = ☐ → D
2100 + 4648 = ☐ → G	3385 + 6361 = ☐ → N	5833 + 2884 = ☐ → S
3643 + 1579 = ☐ → I	1163 + 1673 = ☐ → C	1405 + 2567 = ☐ → Y
1114 + 1485 = ☐ → R	3243 + 5861 = ☐ → P	1090 + 1242 = ☐ → L
3006 + 2211 = ☐ → O	4154 + 5418 = ☐ → H	4074 + 4103 = ☐ → A
4828 + 4654 = ☐ → V		

Scratch space:

CLUE 2 Fractions of a number

The tower guard looked at the sky fleet roster and calculated what fraction of ships were docked.

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



1/10 of 80 = ☐ → W

5/6 of 30 = ☐ → A

1/3 of 87 = ☐ → H

3/6 of 68 = ☐ → T

1/2 of 62 = ☐ → D

1/3 of 120 = ☐ → L

1/8 of 72 = ☐ → N

4/6 of 36 = ☐ → S

3/6 of 74 = ☐ → E

1/2 of 54 = ☐ → F

3/10 of 100 = ☐ → U

2/6 of 36 = ☐ → C

2/4 of 46 = ☐ → P

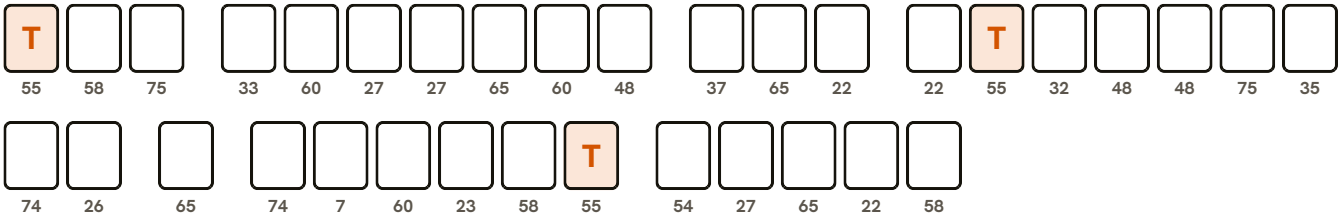
1/4 of 152 = ☐ → I

Scratch space:

CLUE 3 Order of operations

The engineer evaluated the mechanical power gauge using the step by step manual formula.

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



20 + 7 × 5 = ☐ → T

3 × 12 - 4 = ☐ → U

16 + 6 × 7 = ☐ → H

17 + 4 × 5 = ☐ → W

65 + 5 × 2 = ☐ → E

2 + 3 × 8 = ☐ → Y

4 × 11 - 22 = ☐ → S

4 × 11 - 11 = ☐ → V

8 × 12 - 22 = ☐ → B

12 × 5 - 25 = ☐ → D

11 × 7 - 17 = ☐ → I

11 × 5 - 1 = ☐ → F

6 + 3 × 7 = ☐ → L

10 × 7 - 22 = ☐ → N

3 + 2 × 2 = ☐ → R

11 × 3 - 10 = ☐ → G

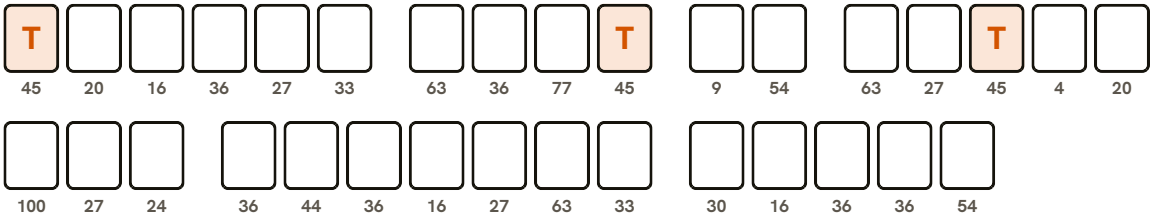
7 × 12 - 19 = ☐ → A

Scratch space:

CLUE 4 Multiplication facts (1-12)

> The chief observer counted supplies stored across multiple rows of cargo crates.

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



9 × 5 = ☐ → T

7 × 11 = ☐ → F

7 × 9 = ☐ → L

9 × 6 = ☐ → N

12 × 3 = ☐ → E

2 × 8 = ☐ → R

3 × 9 = ☐ → A

9 × 1 = ☐ → O

5 × 6 = ☐ → G

4 × 6 = ☐ → S

11 × 3 = ☐ → D

10 × 10 = ☐ → W

1 × 4 = ☐ → C

2 × 10 = ☐ → H

11 × 4 = ☐ → M

Scratch space:

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

> The sky marshal distributed the emergency beacon tokens equally among the patrol squads.

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:

64 ÷ 8 = ☐	84 ÷ 12 = ☐	84 ÷ 7 = ☐	20 ÷ 10 = ☐	30 ÷ 5 = ☐
27 ÷ 9 = ☐	80 ÷ 8 = ☐	18 ÷ 2 = ☐	25 ÷ 5 = ☐	28 ÷ 7 = ☐
88 ÷ 8 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain sounded a sonic horn, then drifted away on a solar dirigible.
2. The villain fired a grapple hook, then escaped in a gyro copter.
3. The villain activated a magnet glove, then sped off in a steam runner.
4. The villain dropped a smoke bomb, then boarded a jet biplane.
5. The villain deployed a glider pack, then zipped off on a cloud skiff.
6. The villain dropped a smoke bomb, then zipped off on a cloud skiff.
7. The villain activated a magnet glove, then drifted away on a solar dirigible.
8. The villain fired a grapple hook, then sped off in a steam runner.
9. The villain activated a magnet glove, then escaped in a gyro copter.
10. The villain sounded a sonic horn, then escaped in a gyro copter.
11. The villain sounded a sonic horn, then sped off in a steam runner.
12. The villain dropped a smoke bomb, then drifted away on a solar dirigible.

TEACHER / PARENT

Answer Key

The Cloud Compass Heist

Culprit: Nora Sterling

Sonic Horn · Solar Dirigible · Left Handed · Emerald Green · Bright Flash

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DID NOT ESCAPE IN A GYRO COPTER"

3902 + 3004 = 6906 (T) · 2470 + 1500 = 3970 (E) · 1038 + 1048 = 2086 (D) · 2100 + 4648 = 6748 (G) · 3385 + 6361 = 9746 (N) · 5833 + 2884 = 8717 (S) · 3643 + 1579 = 5222 (I) · 1163 + 1673 = 2836 (C) · 1405 + 2567 = 3972 (Y) · 1114 + 1485 = 2599 (R) · 3243 + 5861 = 9104 (P) · 1090 + 1242 = 2332 (L) · 3006 + 2211 = 5217 (O) · 4154 + 5418 = 9572 (H) · 4074 + 4103 = 8177 (A) · 4828 + 4654 = 9482 (V)

Clue 2 (Fractions of a number): "WITNESS SAW SUSPECT USE LEFT HAND"

1/10 of 80 = 8 (W) · 5/6 of 30 = 25 (A) · 1/3 of 87 = 29 (H) · 3/6 of 68 = 34 (T) · 1/2 of 62 = 31 (D) · 1/3 of 120 = 40 (L) · 1/8 of 72 = 9 (N) · 4/6 of 36 = 24 (S) · 3/6 of 74 = 37 (E) · 1/2 of 54 = 27 (F) · 3/10 of 100 = 30 (U) · 2/6 of 36 = 12 (C) · 2/4 of 46 = 23 (P) · 1/4 of 152 = 38 (I)

Clue 3 (Order of operations): "THE VILLAIN WAS STUNNED BY A BRIGHT FLASH"

20 + 7 × 5 = 55 (T) · 3 × 12 - 4 = 32 (U) · 16 + 6 × 7 = 58 (H) · 17 + 4 × 5 = 37 (W) · 65 + 5 × 2 = 75 (E) · 2 + 3 × 8 = 26 (Y) · 4 × 11 - 22 = 22 (S) · 4 × 11 - 11 = 33 (V) · 8 × 12 - 22 = 74 (B) · 12 × 5 - 25 = 35 (D) · 11 × 7 - 17 = 60 (I) · 11 × 5 - 1 = 54 (F) · 6 + 3 × 7 = 27 (L) · 10 × 7 - 22 = 48 (N) · 3 + 2 × 2 = 7 (R) · 11 × 3 - 10 = 23 (G) · 7 × 12 - 19 = 65 (A)

Clue 4 (Multiplication facts (1-12)): "THREAD LEFT ON LATCH WAS EMERALD GREEN"

9 × 5 = 45 (T) · 7 × 11 = 77 (F) · 7 × 9 = 63 (L) · 9 × 6 = 54 (N) · 12 × 3 = 36 (E) · 2 × 8 = 16 (R) · 3 × 9 = 27 (A) · 9 × 1 = 9 (O) · 5 × 6 = 30 (G) · 4 × 6 = 24 (S) · 11 × 3 = 33 (D) · 10 × 10 = 100 (W) · 1 × 4 = 4 (C) · 2 × 10 = 20 (H) · 11 × 4 = 44 (M)

Clue 5 (Division facts (1-12)): surviving statement is box 1 → Nora Sterling

64 ÷ 8 = 8 · 84 ÷ 12 = 7 · 84 ÷ 7 = 12 · 20 ÷ 10 = 2 · 30 ÷ 5 = 6 · 27 ÷ 9 = 3 · 80 ÷ 8 = 10 · 18 ÷ 2 = 9 · 25 ÷ 5 = 5 · 28 ÷ 7 = 4 · 88 ÷ 8 = 11