The Case of the Missing Golden Compass

Grade 3 math · Addition, Place value, Rounding, Skip counting, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

The Golden Compass has disappeared from Cloudcrest Airstation! A sneaky sky bandit took off with it. Use your detective notebook to inspect clues and find out who took it.

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.

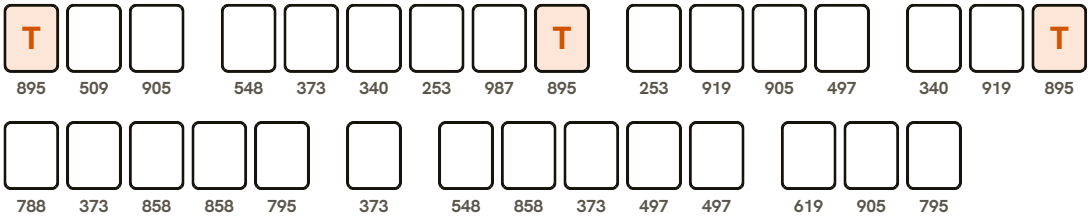
NAME	AIRSHIP GEAR	GADGET TOOL	GLOVE HAND	GOGGLE STRAP	FEAR
Navigator Eli	Wind Cannon	Map Case	Right Glove On	Blue Strap	Loud Whistles
Ranger Noah	Glider Wings	Map Case	Right Glove On	Gold Strap	Bright Lights
Officer Ben	Steam Jet	Map Case	Left Glove On	Blue Strap	Strong Gusts
Pilot Felix	Grapple Hook	Spyglass	Left Glove On	Gold Strap	Strong Gusts
Sky Scout Ava	Rocket Boots	Signal Flare	Right Glove On	Gold Strap	Loud Whistles
Scout Mia	Wind Cannon	Brass Key	Right Glove On	Gold Strap	Loud Whistles
Captain Zoe	Glider Wings	Map Case	Right Glove On	Gold Strap	Loud Whistles
Navigator Owen	Glider Wings	Brass Key	Right Glove On	Blue Strap	Strong Gusts
Ranger Kai	Steam Jet	Brass Key	Left Glove On	Red Strap	Loud Whistles
Sky Scout Nora	Grapple Hook	Map Case	Left Glove On	Blue Strap	Bright Lights
Explorer Maya	Steam Jet	Map Case	Right Glove On	Gold Strap	Bright Lights
Scout Iris	Glider Wings	Brass Key	Left Glove On	Red Strap	Bright Lights
Pilot Jax	Glider Wings	Brass Key	Right Glove On	Blue Strap	Loud Whistles
Officer Ruby	Glider Wings	Compass Dial	Right Glove On	Red Strap	Strong Gusts
Pilot Liam	Wind Cannon	Map Case	Right Glove On	Gold Strap	Loud Whistles
Captain Milo	Wind Cannon	Signal Flare	Right Glove On	Gold Strap	Loud Whistles
Explorer Ella	Grapple Hook	Compass Dial	Left Glove On	Red Strap	Bright Lights
Officer Lucas	Steam Jet	Spyglass	Left Glove On	Gold Strap	Loud Whistles
Aviation Sam	Grapple Hook	Spyglass	Right Glove On	Red Strap	Strong Gusts
Pilot Ezra	Steam Jet	Signal Flare	Left Glove On	Gold Strap	Strong Gusts
Navigator Leo	Steam Jet	Spyglass	Left Glove On	Blue Strap	Strong Gusts

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CLUE 1 Addition

You tally up the supply crates in the cargo bay to unlock the first clue chest.

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



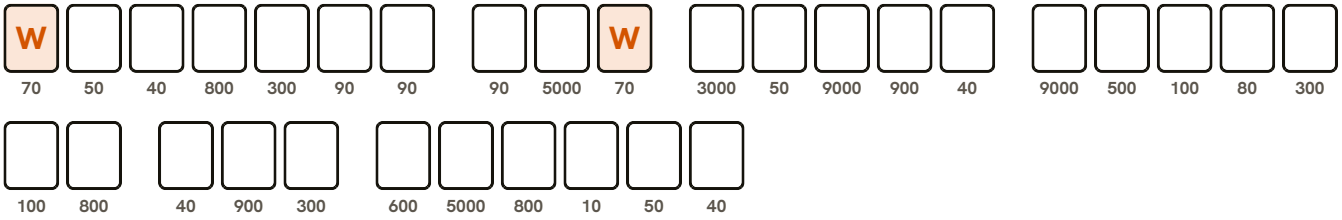
350 + 545 = ☐ → T	633 + 286 = ☐ → O	247 + 548 = ☐ → Y
143 + 230 = ☐ → A	262 + 286 = ☐ → B	643 + 344 = ☐ → I
192 + 305 = ☐ → S	121 + 219 = ☐ → N	231 + 278 = ☐ → H
546 + 312 = ☐ → R	268 + 351 = ☐ → K	410 + 495 = ☐ → E
275 + 513 = ☐ → C	77 + 176 = ☐ → D	

Scratch space:

CLUE 2 Place value

You check the digits on the door lock code to see which number is in the hundreds place.

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



What is the value of the 7 in 578? ☐ → W

What is the value of the 1 in 415? ☐ → D

What is the value of the 5 in 25,384? ☐ → A

What is the value of the 6 in 9,694? ☐ → B

What is the value of the 8 in 3,387? ☐ → V

What is the value of the 3 in 3,254? ☐ → R

What is the value of the 1 in 156? ☐ → O

What is the value of the 4 in 841? ☐ → T

What is the value of the 5 in 6,759? ☐ → I

What is the value of the 8 in 9,806? ☐ → N

What is the value of the 9 in 8,955? ☐ → H

What is the value of the 5 in 6,570? ☐ → L

What is the value of the 9 in 9,121? ☐ → G

What is the value of the 3 in 391? ☐ → E

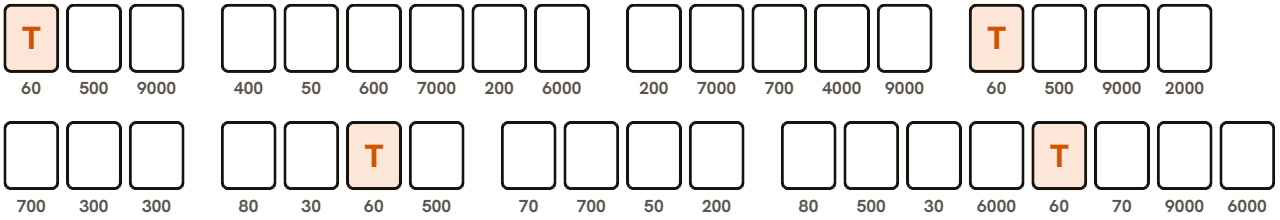
What is the value of the 9 in 294? ☐ → S

Scratch space:

CLUE 3 Rounding

The cloud radar screen rounds the airship distance to the nearest hundred to trace the flight.

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



Round 63 to the nearest ten ☐ → T

Round 5,840 to the nearest thousand ☐ → S

Round 490 to the nearest hundred ☐ → H

Round 8,795 to the nearest thousand ☐ → E

Round 84 to the nearest ten ☐ → W

Round 2,373 to the nearest thousand ☐ → M

Round 6,741 to the nearest thousand ☐ → R

Round 436 to the nearest hundred ☐ → G

Round 235 to the nearest hundred ☐ → D

Round 317 to the nearest hundred ☐ → F

Round 3,883 to the nearest thousand ☐ → V

Round 69 to the nearest ten ☐ → L

Round 674 to the nearest hundred ☐ → O

Round 30 to the nearest ten ☐ → I

Round 47 to the nearest ten ☐ → U

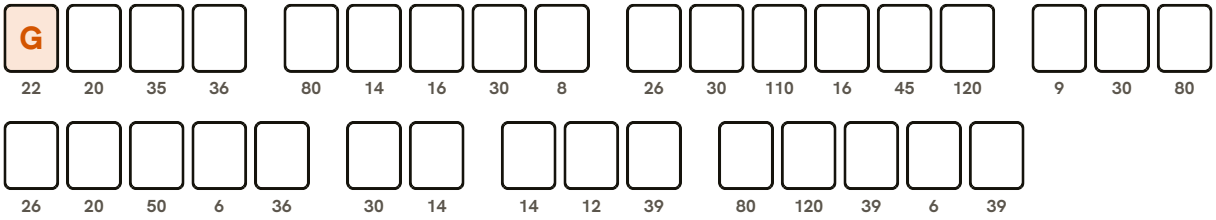
Round 553 to the nearest hundred ☐ → A

Scratch space:

CLUE 4 Skip counting

You count the rope ladder steps by fours to climb up to the observation deck quickly.

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



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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 ☐ → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, ___, 15, 18 ☐ → **H**

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 ☐ → **B**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 ☐ → **C**

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → **N**

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

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 ☐ → **W**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → **S**

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

Skip-count by 10s. Fill the blank: 10, 20, ___, 40, 50 ☐ → **A**

Skip-count by 5s. Fill the blank: 5, 10, 15, ___, 25, 30 ☐ → **O**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → **T**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, ___, 55, 60 ☐ → **U**

Scratch space:

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

You divide the fuel canisters equally among the search gliders to power the investigation.

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:

40 ÷ 4 = ☐ | 4 ÷ 2 = ☐ | 44 ÷ 4 = ☐ | 44 ÷ 11 = ☐ | 99 ÷ 11 = ☐

60 ÷ 12 = ☐ | 48 ÷ 6 = ☐ | 3 ÷ 3 = ☐ | 30 ÷ 5 = ☐ | 15 ÷ 5 = ☐

28 ÷ 4 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain swung down with a grapple hook, then checked the compass dial.
2. The villain blew past with a wind cannon, then tucked away a map case.
3. The villain swung down with a grapple hook, then scouted with a spyglass.
4. The villain blew past with a wind cannon, then checked the compass dial.
5. The villain blasted off with rocket boots, then tucked away a map case.
6. The villain zoomed away on a steam jet, then scouted with a spyglass.
7. The villain zipped across with glider wings, then scouted with a spyglass.
8. The villain blasted off with rocket boots, then dropped a brass key.
9. The villain swung down with a grapple hook, then dropped a brass key.
10. The villain blasted off with rocket boots, then fired a signal flare.
11. The villain zipped across with glider wings, then tucked away a map case.
12. The villain blew past with a wind cannon, then fired a signal flare.

TEACHER / PARENT

Answer Key

The Case of the Missing Golden Compass

Culprit: Captain Milo

Wind Cannon · Signal Flare · Right Glove On · Gold Strap · Loud Whistles

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE BANDIT DOES NOT CARRY A BRASS KEY"

350 + 545 = 895 (T) · 633 + 286 = 919 (O) · 247 + 548 = 795 (Y) · 143 + 230 = 373 (A) · 262 + 286 = 548 (B) · 643 + 344 = 987 (I) · 192 + 305 = 497 (S) · 121 + 219 = 340 (N) · 231 + 278 = 509 (H) · 546 + 312 = 858 (R) · 268 + 351 = 619 (K) · 410 + 495 = 905 (E) · 275 + 513 = 788 (C) · 77 + 176 = 253 (D)

Clue 2 (Place value): "WITNESS SAW RIGHT GLOVE ON THE BANDIT"

What is the value of the 7 in 578? = 70 (W) · What is the value of the 1 in 415? = 10 (D) · What is the value of the 5 in 25,384? = 5000 (A) · What is the value of the 6 in 9,694? = 600 (B) · What is the value of the 8 in 3,387? = 80 (V) · What is the value of the 3 in 3,254? = 3000 (R) · What is the value of the 1 in 156? = 100 (O) · What is the value of the 4 in 841? = 40 (T) · What is the value of the 5 in 6,759? = 50 (I) · What is the value of the 8 in 9,806? = 800 (N) · What is the value of the 9 in 8,955? = 900 (H) · What is the value of the 5 in 6,570? = 500 (L) · What is the value of the 9 in 9,121? = 9000 (G) · What is the value of the 3 in 391? = 300 (E) · What is the value of the 9 in 294? = 90 (S)

Clue 3 (Rounding): "THE GUARDS DROVE THEM OFF WITH LOUD WHISTLES"

Round 63 to the nearest ten = 60 (T) · Round 5,840 to the nearest thousand = 6000 (S) · Round 490 to the nearest hundred = 500 (H) · Round 8,795 to the nearest thousand = 9000 (E) · Round 84 to the nearest ten = 80 (W) · Round 2,373 to the nearest thousand = 2000 (M) · Round 6,741 to the nearest thousand = 7000 (R) · Round 436 to the nearest hundred = 400 (G) · Round 235 to the nearest hundred = 200 (D) · Round 317 to the nearest hundred = 300 (F) · Round 3,883 to the nearest thousand = 4000 (V) · Round 69 to the nearest ten = 70 (L) · Round 674 to the nearest hundred = 700 (O) · Round 30 to the nearest ten = 30 (I) · Round 47 to the nearest ten = 50 (U) · Round 553 to the nearest hundred = 600 (A)

Clue 4 (Skip counting): "GOLD STRAP FABRIC WAS FOUND AT THE SCENE"

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

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Captain Milo

40 ÷ 4 = 10 · 4 ÷ 2 = 2 · 44 ÷ 4 = 11 · 44 ÷ 11 = 4 · 99 ÷ 11 = 9 · 60 ÷ 12 = 5 · 48 ÷ 6 = 8 · 3 ÷ 3 = 1 · 30 ÷ 5 = 6 · 15 ÷ 5 = 3 · 28 ÷ 4 = 7