



The Sky Ship Sabotage

Grade 4 math · Rounding, Word problems, Multi-step word problems, Skip counting, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

The Great Airship Race is about to start, but someone has stolen the Golden Compass! The Chief Engineer needs your help. Look at the clue board, use your math skills, and find the sneaky saboteur before the fleet takes off!

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 saboteur is _____

Possible suspects

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

NAME	FAVORITE TOOL	AIRSHIP NAME	WRITING HAND	GOGGLES STYLE	FEAR OF
Navigator Nate	Brass Wrench	The Wind Runner	Left-Handed	Tinted Goggles	Bright Flashlights
Pilot Paige	Steam Hammer	The Sun Seeker	Right-Handed	Round Goggles	Bright Flashlights
Captain Cleo	Copper Pliers	The Star Hopper	Left-Handed	Round Goggles	Bright Flashlights
Pilot Piper	Brass Wrench	The Sun Seeker	Left-Handed	Tinted Goggles	Bright Flashlights
Navigator Ned	Steam Hammer	The Cloud Racer	Left-Handed	Round Goggles	Loud Whistles
Pilot Peter	Steam Hammer	The Storm Chaser	Left-Handed	Tinted Goggles	Bright Flashlights
Navigator Nina	Steam Hammer	The Cloud Racer	Left-Handed	Tinted Goggles	Bright Flashlights
Skipper Sally	Pocket Compass	The Star Hopper	Right-Handed	Tinted Goggles	Bright Flashlights
Captain Cody	Laser Pointer	The Star Hopper	Right-Handed	Spiky Goggles	Squeaky Toys
Pilot Preston	Brass Wrench	The Cloud Racer	Right-Handed	Round Goggles	Loud Whistles
Skipper Sam	Steam Hammer	The Sun Seeker	Right-Handed	Spiky Goggles	Bright Flashlights
Skipper Silas	Brass Wrench	The Storm Chaser	Left-Handed	Tinted Goggles	Loud Whistles
Flyer Fiona	Pocket Compass	The Storm Chaser	Left-Handed	Tinted Goggles	Bright Flashlights
Captain Connor	Copper Pliers	The Storm Chaser	Left-Handed	Spiky Goggles	Loud Whistles
Pilot Penelope	Steam Hammer	The Sun Seeker	Left-Handed	Tinted Goggles	Squeaky Toys
Captain Clara	Brass Wrench	The Cloud Racer	Right-Handed	Tinted Goggles	Bright Flashlights
Flyer Felix	Steam Hammer	The Storm Chaser	Right-Handed	Round Goggles	Loud Whistles
Flyer Fred	Steam Hammer	The Star Hopper	Left-Handed	Tinted Goggles	Squeaky Toys
Navigator Nora	Steam Hammer	The Wind Runner	Right-Handed	Tinted Goggles	Bright Flashlights
Skipper Skye	Laser Pointer	The Cloud Racer	Left-Handed	Spiky Goggles	Loud Whistles
Captain Barnaby	Brass Wrench	The Storm Chaser	Left-Handed	Round Goggles	Bright Flashlights

CLUE 1

The fuel gauge is blurry, but rounding the gallons to the nearest ten reveals our first clue!

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

Diagram illustrating the distribution of 130 T-shirts across 10 stores. The top row shows the initial distribution: Store 1 has 130 T-shirts, Store 2 has 5000, Store 3 has 430, Store 4 has 90, Store 5 has 1700, Store 6 has 1100, Store 7 has 1100, Store 8 has 30, Store 9 has 1700, and Store 10 has 370. The bottom row shows the distribution after moving 100 T-shirts from Store 1 to Store 10: Store 1 has 30 T-shirts, Store 2 has 5000, Store 3 has 430, Store 4 has 9000, Store 5 has 500, Store 6 has 370, Store 7 has 9000, Store 8 has 430, Store 9 has 430, Store 10 has 110, and Store 11 has 430. The total number of T-shirts remains 130.

Round 134 to the nearest ten → T	Round 109 to the nearest ten → K
Round 536 to the nearest hundred → U	Round 1,685 to the nearest hundred → I
Round 69 to the nearest ten → O	Round 430 to the nearest ten → E
Round 9,100 to the nearest thousand → S	Round 7,312 to the nearest thousand → Y
Round 2,910 to the nearest hundred → F	Round 1,131 to the nearest hundred → L
Round 374 to the nearest ten → N	Round 93 to the nearest ten → V
Round 289 to the nearest ten → R	Round 3,095 to the nearest thousand → D
Round 34 to the nearest ten → A	Round 4,956 to the nearest thousand → H

Scratch space:

CLUE 2

Word problems

The dock manager counts the airship propellers to get the next lead.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was L D D .

27 57 68 61 28 15 9 57

Captain Rusty lined up 9 rows of 3 compasses. How many compasses in all?

Answer: → L

Captain Rusty found 51 compasses yesterday and 10 more today. How many compasses in all?

Answer: → T

There were 101 balloons. 33 were used up. How many balloons are left?

Answer: → F

Captain Rusty found 3 gears yesterday and 6 more today. How many gears in all?

Answer: → N

Captain Rusty found 36 ropes yesterday and 21 more today. How many ropes in all?

Answer: → E

There were 45 goggles. 17 were used up. How many goggles are left?

Answer: → H

Captain Rusty lined up 3 rows of 5 ropes. How many ropes in all?

Answer: → A

Scratch space:

CLUE 3

Multi-step word problems

We must calculate the total cargo weight across multiple crates to crack this security safe.

Solve each problem, then write its letter in the boxes to fill in the missing word.

Someone scared the villain off with

.

25 19 15 20 18 43 32 18 15 20 18 43

There were 54 ropes in all. 4 ropes were set aside. The rest were shared equally among 2 The Sky Patrol. How many ropes did each get?

Answer: →

There were 115 compasses in all. 4 The Sky Patrol used 5 compasses each. The other 5 The Sky Patrol shared the rest equally. How many compasses did each of the other The Sky Patrol get?

Answer: →

There were 92 balloons in all. 1 The Sky Patrol used 20 balloons each. The other 4 The Sky Patrol shared the rest equally. How many balloons did each of the other The Sky Patrol get?

Answer: →

There were 108 balloons in all. 33 balloons were set aside. The rest were shared equally among 5 The Sky Patrol. How many balloons did each get?

Answer: →

Captain Rusty collected 20 goggles in the morning and 40 goggles in the afternoon, then split them equally among 3 The Sky Patrol. How many goggles did each get?

Answer: →

Captain Rusty filled 5 boxes with 5 balloons each, then found 7 more balloons. How many balloons are there in all?

Answer: →

Captain Rusty filled 5 boxes with 5 balloons each, then found 18 more balloons. How many balloons are there in all?

Answer: →

Scratch space:

CLUE 4 Skip counting

Follow the pattern of numbered sky-steps to find where the thief dropped their notebook.

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

T			T													
33	28	140	33	26	30	110	65	12	24	24	24	15	12	50	30	24
							T			T						
39	26	50	26	65	26	8	33	25	140	33	15	26	8	65	25	50

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 → **T**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **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 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **L**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **F**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **N**

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **O**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **S**

Scratch space:

CLUE 5**Missing addends - the last clue**

We need to balance the scale with the missing gear weight to unlock the final room.

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:

$3 + \underline{\quad} = 10$

$2 + \underline{\quad} = 13$

$31 + \underline{\quad} = 43$

$9 + \underline{\quad} = 19$

$21 + \underline{\quad} = 25$

$15 + \underline{\quad} = 21$

$19 + \underline{\quad} = 20$

$35 + \underline{\quad} = 43$

$27 + \underline{\quad} = 29$

$17 + \underline{\quad} = 26$

$29 + \underline{\quad} = 34$

Step 2 - cross out the sentence with each answer:

1. The villain mixed up the engine fuel, then fled in a tiny balloon.
2. The villain hid the pilot logs, then zipped down the sky line.
3. The villain cut the anchor ropes, then fled in a tiny balloon.
4. The villain mixed up the engine fuel, then escaped on a glider.
5. The villain mixed up the engine fuel, then dashed down the wooden dock.
6. The villain hid the pilot logs, then fled in a tiny balloon.
7. The villain stole the golden compass, then zipped down the sky line.
8. The villain tangled the main sails, then zipped down the sky line.
9. The villain tangled the main sails, then jumped into a cloud bank.
10. The villain mixed up the engine fuel, then jumped into a cloud bank.
11. The villain tangled the main sails, then fled in a tiny balloon.
12. The villain cut the anchor ropes, then jumped into a cloud bank.

Answer Key

The Sky Ship Sabotage

Culprit: Pilot Peter

Steam Hammer · The Storm Chaser · Left-Handed · Tinted Goggles · Bright Flashlights

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT FLY THE SUN SEEKER"

Round 134 to the nearest ten = 130 (T) · Round 109 to the nearest ten = 110 (K) · Round 536 to the nearest hundred = 500 (U) · Round 1,685 to the nearest hundred = 1700 (I) · Round 69 to the nearest ten = 70 (O) · Round 430 to the nearest ten = 430 (E) · Round 9,100 to the nearest thousand = 9000 (S) · Round 7,312 to the nearest thousand = 7000 (Y) · Round 2,910 to the nearest hundred = 2900 (F) · Round 1,131 to the nearest hundred = 1100 (L) · Round 374 to the nearest ten = 370 (N) · Round 93 to the nearest ten = 90 (V) · Round 289 to the nearest ten = 290 (R) · Round 3,095 to the nearest thousand = 3000 (D) · Round 34 to the nearest ten = 30 (A) · Round 4,956 to the nearest thousand = 5000 (H)

Clue 2 (Word problems): "LEFT HANDED"

Captain Rusty lined up 9 rows of 3 compasses. How many compasses in all? = 27 (L) · Captain Rusty found 51 compasses yesterday and 10 more today. How many compasses in all? = 61 (T) · There were 101 balloons. 33 were used up. How many balloons are left? = 68 (F) · Captain Rusty found 3 gears yesterday and 6 more today. How many gears in all? = 9 (N) · Captain Rusty found 36 ropes yesterday and 21 more today. How many ropes in all? = 57 (E) · There were 45 goggles. 17 were used up. How many goggles are left? = 28 (H) · Captain Rusty lined up 3 rows of 5 ropes. How many ropes in all? = 15 (A)

Clue 3 (Multi-step word problems): "BRIGHT FLASHLIGHTS"

There were 54 ropes in all. 4 ropes were set aside. The rest were shared equally among 2 The Sky Patrol. How many ropes did each get? = 25 (B) · There were 115 compasses in all. 4 The Sky Patrol used 5 compasses each. The other 5 The Sky Patrol shared the rest equally. How many compasses did each of the other The Sky Patrol get? = 19 (R) · There were 92 balloons in all. 1 The Sky Patrol used 20 balloons each. The other 4 The Sky Patrol shared the rest equally. How many balloons did each of the other The Sky Patrol get? = 18 (H) · There were 108 balloons in all. 33 balloons were set aside. The rest were shared equally among 5 The Sky Patrol. How many balloons did each get? = 15 (I) · Captain Rusty collected 20 goggles in the morning and 40 goggles in the afternoon, then split them equally among 3 The Sky Patrol. How many goggles did each get? = 20 (G) · Captain Rusty filled 5 boxes with 5 balloons each, then found 7 more balloons. How many balloons are there in all? = 32 (F) · Captain Rusty filled 5 boxes with 5 balloons each, then found 18 more balloons. How many balloons are there in all? = 43 (T)

Clue 4 (Skip counting): "TINTED GLASS SHARDS WERE LEFT ON THE FLOOR"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 = 30 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (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 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (F) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 = 12 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (S)

Clue 5 (Missing addends): surviving statement is box 3 → Pilot Peter

3 + __ = 10 = 7 · 2 + __ = 13 = 11 · 31 + __ = 43 = 12 · 9 + __ = 19 = 10 · 21 + __ = 25 = 4 · 15 + __ = 21 = 6 · 19 + __ = 20 = 1 · 35 + __ = 43 = 8 · 27 + __ = 29 = 2 · 17 + __ = 26 = 9 · 29 + __ = 34 = 5