



Mystery of the Missing Wind-Key

Grade 5 math · Multiplication, Word problems, Rounding, Subtraction, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

A sneaky thief snuck onto the Great Airship Aurora and swiped the legendary Wind-Key! Chief Mechanic Barnaby needs our help to catch the runaway Sky Bandit before they fly off 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	PILOT GEAR	ESCAPE TOOL	STEERING HAND	HAIR COLOR	FEAR OF
Nellie Bly	leather journal	climbing rope	right handed grip	bright red hair	loud whistles
Robinson Crusoe	map compass	zipline hook	left handed grip	bright red hair	sticky honey
Long John	brass compass	zipline hook	right handed grip	bright red hair	sticky honey
Wendy Darling	map compass	smoke bomb	right handed grip	spiky black hair	sticky honey
Roald Amundsen	brass compass	glider wings	right handed grip	spiky black hair	sticky honey
Bessie Coleman	brass compass	climbing rope	left handed grip	messy brown hair	bright flashlights
Matthew Henson	map compass	climbing rope	left handed grip	messy brown hair	sticky honey
Sacagawea	brass compass	climbing rope	left handed grip	messy brown hair	sticky honey
Marco Polo	brass compass	zipline hook	right handed grip	messy brown hair	sticky honey
Jacques Cousteau	map compass	smoke bomb	right handed grip	messy brown hair	bright flashlights
James Cook	aviator watch	glider wings	right handed grip	messy brown hair	sticky honey
Jim Hawkins	pocket spyglass	glider wings	left handed grip	messy brown hair	bright flashlights
Robin Hood	leather journal	smoke bomb	left handed grip	messy brown hair	sticky honey
Captain Hook	aviator watch	climbing rope	right handed grip	spiky black hair	bright flashlights
Peter Pan	pocket spyglass	glider wings	right handed grip	spiky black hair	loud whistles
Sallie Ride	pocket spyglass	smoke bomb	right handed grip	messy brown hair	bright flashlights
Orville Wright	pocket spyglass	smoke bomb	right handed grip	bright red hair	bright flashlights
Neil Armstrong	aviator watch	smoke bomb	left handed grip	messy brown hair	bright flashlights
Charles Lindbergh	aviator watch	smoke bomb	right handed grip	spiky black hair	loud whistles
Mae Jemison	aviator watch	parachute pack	left handed grip	messy brown hair	sticky honey
Daniel Boone	brass compass	glider wings	left handed grip	messy brown hair	sticky honey

CLUE 1

Multiplication facts (1-12)

The thief left footprints near the cargo crates. The crates are stacked in neat rows, and we can count them quickly to find where the clue is hidden.

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

T			T											T				
22	77	18	22	77	100	18	30	10	44	18	6	36	44	22	77	40	28	18
63	12	100	10	18	20	8	100	36	63	6								

$2 \times 11 = \square \rightarrow \boxed{\text{T}}$

$10 \times 2 = \square \rightarrow \boxed{\text{R}}$

$10 \times 4 = \square \rightarrow \boxed{\text{A}}$

$6 \times 2 = \square \rightarrow \boxed{\text{L}}$

$4 \times 11 = \square \rightarrow \boxed{\text{O}}$

$1 \times 8 = \square \rightarrow \boxed{\text{W}}$

$10 \times 10 = \square \rightarrow \boxed{\text{I}}$

$10 \times 3 = \square \rightarrow \boxed{\text{F}}$

$4 \times 7 = \square \rightarrow \boxed{\text{V}}$

$7 \times 9 = \square \rightarrow \boxed{\text{G}}$

$1 \times 10 = \square \rightarrow \boxed{\text{D}}$

$7 \times 11 = \square \rightarrow \boxed{\text{H}}$

$3 \times 6 = \square \rightarrow \boxed{\text{E}}$

$2 \times 3 = \square \rightarrow \boxed{\text{S}}$

$6 \times 6 = \square \rightarrow \boxed{\text{N}}$

Scratch space:

CLUE 2

Word problems

Our young explorer team found a spilled toolbag. If we solve this word puzzle about the lost tools, we can reveal the thief's escape path.

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 G R I P .

74 65 33 118 100 41 84 65

There were 97 cloud badges. 23 were used up. How many cloud badges are left?

Answer: → L

There were 96 spyglasses. 31 were used up. How many spyglasses are left?

Answer: → E

There were 140 spyglasses. 22 were used up. How many spyglasses are left?

Answer: → T

Navigator lined up 10 rows of 10 propellers. How many propellers in all?

Answer: → H

There were 57 propellers. 16 were used up. How many propellers are left?

Answer: → A

There were 61 brass gears. 28 were used up. How many brass gears are left?

Answer: → F

There were 122 cloud badges. 38 were used up. How many cloud badges are left?

Answer: → N

Scratch space:

CLUE 3 Rounding

The airship altimeter is damaged and only displays rounded numbers. Let us round the air pressure readings to unlock the cabin door.

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

T																			
900	2000	1100	90	700	230	230	1100	90	30	700	900	5000	900	170	3000	3700	4300	1300	
				T															
5000	50	1100	1100	900	2000	700	1300	1100	2900										

Round 852 to the nearest hundred → **T**

Round 3,117 to the nearest thousand → **C**

Round 3,747 to the nearest hundred → **K**

Round 32 to the nearest ten → **G**

Round 1,312 to the nearest hundred → **N**

Round 4,255 to the nearest hundred → **I**

Round 2,054 to the nearest thousand → **H**

Round 739 to the nearest hundred → **O**

Round 1,097 to the nearest hundred → **E**

Round 54 to the nearest ten → **W**

Round 2,893 to the nearest hundred → **Y**

Round 88 to the nearest ten → **R**

Round 233 to the nearest ten → **B**

Round 170 to the nearest ten → **U**

Round 5,375 to the nearest thousand → **S**

Scratch space:

CLUE 4 Subtraction

The water supply tank is leaking. If we subtract the remaining gallons from the full tank, we can trace where the thief ran.

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

B																	
3827	4818	4660	8045	6600	1559	4648	6157	4818	8045	4648	7687	7687	8045	6157	5592	6162	1443

2105	4818	4660	6923	6134	1559	6162	4717	4660	4717	4398	5592	6157	6134

$$5048 - 1221 = \boxed{} \rightarrow \boxed{\text{B}}$$

$$8289 - 3641 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$11775 - 4088 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$9922 - 1877 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$4826 - 3267 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$11131 - 4974 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$5166 - 506 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$7367 - 767 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$7269 - 346 = \boxed{} \rightarrow \boxed{\text{M}}$$

$$10915 - 4753 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$8285 - 3887 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$5742 - 1025 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$8908 - 3316 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$2298 - 193 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$8742 - 3924 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$6700 - 566 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$3648 - 2205 = \boxed{} \rightarrow \boxed{\text{D}}$$

Scratch space:

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

We found a pile of golden gears to share equally among our search team. Splitting them up will point us to the thief's hideout.

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:

$22 \div 2 = \boxed{}$

$12 \div 2 = \boxed{}$

$4 \div 1 = \boxed{}$

$1 \div 1 = \boxed{}$

$12 \div 6 = \boxed{}$

$16 \div 2 = \boxed{}$

$63 \div 9 = \boxed{}$

$50 \div 5 = \boxed{}$

$96 \div 8 = \boxed{}$

$36 \div 12 = \boxed{}$

$36 \div 4 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain wrote coordinates in the leather journal, then soared off on the glider wings.
2. The villain plotted a route with the map compass, then slid down using the zipline hook.
3. The villain wrote coordinates in the leather journal, then slid down using the zipline hook.
4. The villain wrote coordinates in the leather journal, then tossed a blinding smoke bomb.
5. The villain plotted a route with the map compass, then scaled the mast with the climbing rope.
6. The villain checked the brass compass, then scaled the mast with the climbing rope.
7. The villain checked the brass compass, then tossed a blinding smoke bomb.
8. The villain scanned the clouds with the pocket spyglass, then scaled the mast with the climbing rope.
9. The villain wrote coordinates in the leather journal, then scaled the mast with the climbing rope.
10. The villain timed the escape on the aviator watch, then tossed a blinding smoke bomb.
11. The villain timed the escape on the aviator watch, then leaped with the parachute pack.
12. The villain scanned the clouds with the pocket spyglass, then soared off on the glider wings.

Answer Key

Mystery of the Missing Wind-Key

Culprit: Matthew Henson

map compass · climbing rope · left handed grip · messy brown hair · sticky honey

Trail: Start 21 → Clue 1 16 → Clue 2 7 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT HAVE GLIDER WINGS"

$2 \times 11 = 22$ (T) · $10 \times 2 = 20$ (R) · $10 \times 4 = 40$ (A) · $6 \times 2 = 12$ (L) · $4 \times 11 = 44$ (O) · $1 \times 8 = 8$ (W) · $10 \times 10 = 100$ (I) · $10 \times 3 = 30$ (F) · $4 \times 7 = 28$ (V) · $7 \times 9 = 63$ (G) · $1 \times 10 = 10$ (D) · $7 \times 11 = 77$ (H) · $3 \times 6 = 18$ (E) · $2 \times 3 = 6$ (S) · $6 \times 6 = 36$ (N)

Clue 2 (Word problems): "LEFT HANDED GRIP"

There were 97 cloud badges. 23 were used up. How many cloud badges are left? = 74 (L) · There were 96 spyglasses. 31 were used up. How many spyglasses are left? = 65 (E) · There were 140 spyglasses. 22 were used up. How many spyglasses are left? = 118 (T) · Navigator lined up 10 rows of 10 propellers. How many propellers in all? = 100 (H) · There were 57 propellers. 16 were used up. How many propellers are left? = 41 (A) · There were 61 brass gears. 28 were used up. How many brass gears are left? = 33 (F) · There were 122 cloud badges. 38 were used up. How many cloud badges are left? = 84 (N)

Clue 3 (Rounding): "THE ROBBER GOT STUCK IN SWEET HONEY"

Round 852 to the nearest hundred = 900 (T) · Round 3,117 to the nearest thousand = 3000 (C) · Round 3,747 to the nearest hundred = 3700 (K) · Round 32 to the nearest ten = 30 (G) · Round 1,312 to the nearest hundred = 1300 (N) · Round 4,255 to the nearest hundred = 4300 (I) · Round 2,054 to the nearest thousand = 2000 (H) · Round 739 to the nearest hundred = 700 (O) · Round 1,097 to the nearest hundred = 1100 (E) · Round 54 to the nearest ten = 50 (W) · Round 2,893 to the nearest hundred = 2900 (Y) · Round 88 to the nearest ten = 90 (R) · Round 233 to the nearest ten = 230 (B) · Round 170 to the nearest ten = 170 (U) · Round 5,375 to the nearest thousand = 5000 (S)

Clue 4 (Subtraction): "BROWN HAIR WAS SWIPED FROM THE COCKPIT"

$5048 - 1221 = 3827$ (B) · $8289 - 3641 = 4648$ (A) · $11775 - 4088 = 7687$ (S) · $9922 - 1877 = 8045$ (W) · $4826 - 3267 = 1559$ (H) · $11131 - 4974 = 6157$ (I) · $5166 - 506 = 4660$ (O) · $7367 - 767 = 6600$ (N) · $7269 - 346 = 6923$ (M) · $10915 - 4753 = 6162$ (E) · $8285 - 3887 = 4398$ (K) · $5742 - 1025 = 4717$ (C) · $8908 - 3316 = 5592$ (P) · $2298 - 193 = 2105$ (F) · $8742 - 3924 = 4818$ (R) · $6700 - 566 = 6134$ (T) · $3648 - 2205 = 1443$ (D)

Clue 5 (Division facts (1-12)): surviving statement is box 5 → Matthew Henson

$22 \div 2 = 11$ · $12 \div 2 = 6$ · $4 \div 1 = 4$ · $1 \div 1 = 1$ · $12 \div 6 = 2$ · $16 \div 2 = 8$ · $63 \div 9 = 7$ · $50 \div 5 = 10$ · $96 \div 8 = 12$ · $36 \div 12 = 3$ · $36 \div 4 = 9$