



# The Cloud Harbor Mystery

Grade 3 math · Place value, Addition, Subtraction, Rounding, Division · Reading level grades 1-2

**Detective:** \_\_\_\_\_ **Date:** \_\_\_\_\_

The Great Sky Pearl has been snatched from the floating Sky Harbor! Captain Pip needs the help of the brave Cloud Patrol to track down the sneaky sky pirate. We must search the clouds, solve the math puzzles, and save the day!

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 pirate is** \_\_\_\_\_

## Possible suspects

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

| NAME             | AIRSHIP PILOT SKILL | FAVORITE GADGET | EYE WEAR       | HAIR COLOR       | SILLY WEAKNESS            |
|------------------|---------------------|-----------------|----------------|------------------|---------------------------|
| Gale Gail        | Star Navigator      | Spark Sparkler  | Black Eyepatch | Sun Yellow Hair  | Scared of tickly feathers |
| Breezy Bella     | Cloud Drifter       | Bubble Blaster  | Shiny Goggles  | Neon Pink Hair   | Sneezes near birds        |
| First Mate Molly | Gale Rider          | Bubble Blaster  | Shiny Goggles  | Neon Pink Hair   | Scared of tickly feathers |
| Captain Claw     | Cloud Drifter       | Turbo Booster   | Black Eyepatch | Neon Pink Hair   | Afraid of heights         |
| Patches McGee    | Cloud Drifter       | Turbo Booster   | Black Eyepatch | Sun Yellow Hair  | Scared of tickly feathers |
| Zippy Zack       | Storm Chaser        | Grappling Hook  | Shiny Goggles  | Sun Yellow Hair  | Scared of tickly feathers |
| Jolly Roger      | Wind Whisperer      | Grappling Hook  | Black Eyepatch | Sun Yellow Hair  | Afraid of heights         |
| Windy Wendy      | Star Navigator      | Spark Sparkler  | Black Eyepatch | Bright Blue Hair | Afraid of heights         |
| Salty Sue        | Wind Whisperer      | Bubble Blaster  | Black Eyepatch | Bright Blue Hair | Scared of tickly feathers |
| Sky Sailor Sam   | Gale Rider          | Net Launcher    | Shiny Goggles  | Bright Blue Hair | Afraid of heights         |
| Penny Plunder    | Gale Rider          | Turbo Booster   | Black Eyepatch | Bright Blue Hair | Afraid of heights         |
| Stormy Stan      | Star Navigator      | Bubble Blaster  | Black Eyepatch | Bright Blue Hair | Afraid of heights         |
| Captain Pip      | Wind Whisperer      | Spark Sparkler  | Black Eyepatch | Bright Blue Hair | Afraid of heights         |
| Peggy Plume      | Cloud Drifter       | Spark Sparkler  | Black Eyepatch | Sun Yellow Hair  | Sneezes near birds        |
| Peggy Pegleg     | Cloud Drifter       | Net Launcher    | Shiny Goggles  | Bright Blue Hair | Afraid of heights         |
| Rusty Rudder     | Storm Chaser        | Net Launcher    | Shiny Goggles  | Bright Blue Hair | Afraid of heights         |
| Breezy Bob       | Storm Chaser        | Net Launcher    | Shiny Goggles  | Sun Yellow Hair  | Sneezes near birds        |
| Barnaby Barnacle | Star Navigator      | Grappling Hook  | Black Eyepatch | Bright Blue Hair | Afraid of heights         |
| Skipper Skip     | Gale Rider          | Turbo Booster   | Black Eyepatch | Sun Yellow Hair  | Afraid of heights         |
| Scurvy Steve     | Wind Whisperer      | Bubble Blaster  | Shiny Goggles  | Sun Yellow Hair  | Sneezes near birds        |
| Captain Coco     | Wind Whisperer      | Grappling Hook  | Black Eyepatch | Bright Blue Hair | Scared of tickly feathers |

### CLUE 1

We check the airship dashboard. The digital dials are broken. We must look at the place value of the digits to read the map.

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

900 30 600 80 10 100 100 4000 10 200 7000 70 600 300 200 70 900

2000 300 600 900 30 600 900 2000 3000 400 70 400 70 70 300 900 600 3000

What is the value of the 9 in 973?  → **T**

What is the value of the 3 in 437?  → **H**

What is the value of the 2 in 6,269?  → **N**

What is the value of the 4 in 94,261?  → **A**

What is the value of the 7 in 47,893?  → **D**

What is the value of the 3 in 3,276?  → **R**

What is the value of the 6 in 677?  → **E**

What is the value of the 8 in 9,181?  → **V**

What is the value of the 1 in 818?  →

What is the value of the 3 in 371?  → **S**

What is the value of the 1 in 2,159?  → **L**

What is the value of the 2 in 92,447?  → **U**

What is the value of the 7 in 4,873?  →

What is the value of the 4 in 403?  → **B**

Scratch space:

## CLUE 2 Addition

Barnaby the Parrot helps us count the shiny coins. We must add the two shiny piles together to find the next clue.

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| T   |     |     |     |     |     |     |     | T   |     |     |     |     |     |     |     |     |  |  |  |
| 638 | 853 | 204 | 524 | 337 | 587 | 853 | 638 | 337 | 426 | 587 | 524 | 524 | 853 | 516 | 989 | 826 |  |  |  |

  

|     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     |     |     |     |     |     |     |     |     | T   |     |  |
| 829 | 464 | 826 | 900 | 738 | 204 | 344 | 204 | 266 | 826 | 638 | 900 | 853 |  |

|                                            |                                            |                                            |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| $397 + 241 = \square \rightarrow$ <b>T</b> | $230 + 107 = \square \rightarrow$ <b>I</b> | $346 + 170 = \square \rightarrow$ <b>O</b> |
| $587 + 402 = \square \rightarrow$ <b>W</b> | $191 + 153 = \square \rightarrow$ <b>Y</b> | $463 + 275 = \square \rightarrow$ <b>K</b> |
| $356 + 497 = \square \rightarrow$ <b>H</b> | $443 + 386 = \square \rightarrow$ <b>B</b> | $470 + 430 = \square \rightarrow$ <b>C</b> |
| $180 + 246 = \square \rightarrow$ <b>N</b> | $197 + 327 = \square \rightarrow$ <b>S</b> | $318 + 146 = \square \rightarrow$ <b>L</b> |
| $474 + 352 = \square \rightarrow$ <b>A</b> | $79 + 187 = \square \rightarrow$ <b>P</b>  | $178 + 409 = \square \rightarrow$ <b>G</b> |
| $64 + 140 = \square \rightarrow$ <b>E</b>  |                                            |                                            |

Scratch space:

## CLUE 3

## Subtraction

Some rope ladders are missing from the deck. We must subtract the remaining ropes to see how many the thief took.

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

|          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>T</b> |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 517      | 518 | 213 | 436 | 716 | 325 | 213 | 603 | 213 | 325 | 436 | 716 | 737 | 325 | 716 | 800 | 712 | 467 | 737 |
|          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 518      | 800 | 313 | 518 | 525 | 692 | 716 | 150 | 213 | 602 |     |     |     |     |     |     |     |     |     |

$645 - 128 = \square \rightarrow \text{ T }$

$882 - 280 = \square \rightarrow \text{ S }$

$817 - 101 = \square \rightarrow \text{ A }$

$660 - 135 = \square \rightarrow \text{ P }$

$937 - 225 = \square \rightarrow \text{ D }$

$1021 - 284 = \square \rightarrow \text{ F }$

$523 - 5 = \square \rightarrow \text{ H }$

$182 - 32 = \square \rightarrow \text{ C }$

$665 - 340 = \square \rightarrow \text{ R }$

$501 - 65 = \square \rightarrow \text{ Y }$

$941 - 249 = \square \rightarrow \text{ L }$

$493 - 180 = \square \rightarrow \text{ G }$

$1000 - 200 = \square \rightarrow \text{ I }$

$321 - 108 = \square \rightarrow \text{ E }$

$670 - 67 = \square \rightarrow \text{ V }$

$647 - 180 = \square \rightarrow \text{ O }$

Scratch space:

## CLUE 4 Rounding

The stormy wind makes the telescope shake. We cannot see the exact number of miles. We must round to the nearest ten.

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

|          |          |      |      |          |          |     |      |      |     |      |      |      |    |     |    |      |    |      |
|----------|----------|------|------|----------|----------|-----|------|------|-----|------|------|------|----|-----|----|------|----|------|
| <b>A</b> |          |      |      | <b>A</b> |          |     |      |      |     |      |      |      |    |     |    |      |    |      |
| 80       | 500      | 400  | 7000 | 80       | 900      | 200 | 8000 | 800  | 40  | 7000 | 9000 | 2000 | 60 | 400 | 40 | 3000 | 90 | 5000 |
|          | <b>A</b> |      |      |          | <b>A</b> |     |      |      |     |      |      |      |    |     |    |      |    |      |
| 60       | 80       | 9000 | 7000 | 300      | 80       | 500 | 3000 | 5000 | 800 | 400  |      |      |    |     |    |      |    |      |

Round 77 to the nearest ten  → **A**

Round 349 to the nearest hundred  → **W**

Round 6,645 to the nearest thousand  → **R**

Round 59 to the nearest ten  → **H**

Round 8,269 to the nearest thousand  → **O**

Round 9,051 to the nearest thousand  → **I**

Round 174 to the nearest hundred  → **D**

Round 3,314 to the nearest thousand  → **L**

Round 86 to the nearest ten  → **U**

Round 44 to the nearest ten  → **B**

Round 839 to the nearest hundred  → **F**

Round 4,589 to the nearest thousand  → **E**

Round 2,071 to the nearest thousand  → **G**

Round 510 to the nearest hundred  → **S**

Round 416 to the nearest hundred  → **T**

Round 901 to the nearest hundred  → **N**

Scratch space:

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

The crew needs to share the sky maps equally. We must divide the maps into even piles so everyone has one.

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:**

$8 \div 8 = \boxed{\phantom{00}}$

$28 \div 4 = \boxed{\phantom{00}}$

$36 \div 6 = \boxed{\phantom{00}}$

$20 \div 10 = \boxed{\phantom{00}}$

$99 \div 9 = \boxed{\phantom{00}}$

$60 \div 12 = \boxed{\phantom{00}}$

$16 \div 2 = \boxed{\phantom{00}}$

$36 \div 9 = \boxed{\phantom{00}}$

$60 \div 5 = \boxed{\phantom{00}}$

$90 \div 9 = \boxed{\phantom{00}}$

$108 \div 12 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain flew the steam rocket, then left a small toy compass.
2. The villain sailed the cloud boat, then dropped shiny gold coins.
3. The villain flew the steam rocket, then dropped shiny gold coins.
4. The villain guided the wood glider, then left a small toy compass.
5. The villain guided the wood glider, then lost a wooden spyglass.
6. The villain spun the airship wheel, then left a small toy compass.
7. The villain flew the steam rocket, then dropped some rope ladders.
8. The villain sailed the cloud boat, then left a small toy compass.
9. The villain spun the airship wheel, then lost a wooden spyglass.
10. The villain sailed the cloud boat, then dropped some rope ladders.
11. The villain guided the wood glider, then dropped some rope ladders.
12. The villain guided the wood glider, then dropped shiny gold coins.

# Answer Key

## The Cloud Harbor Mystery

### Culprit: Barnaby Barnacle

Star Navigator · Grappling Hook · Black Eyepatch · Bright Blue Hair · Afraid of heights

Trail: Start 21 → Clue 1 17 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

#### Clue 1 (Place value): "THE VILLAIN DOES NOT USE THE TURBO BOOSTER"

What is the value of the 9 in 973? = 900 (T) · What is the value of the 3 in 437? = 30 (H) · What is the value of the 2 in 6,269? = 200 (N) · What is the value of the 4 in 94,261? = 4000 (A) · What is the value of the 7 in 47,893? = 7000 (D) · What is the value of the 3 in 3,276? = 3000 (R) · What is the value of the 6 in 677? = 600 (E) · What is the value of the 8 in 9,181? = 80 (V) · What is the value of the 1 in 818? = 10 (I) · What is the value of the 3 in 371? = 300 (S) · What is the value of the 1 in 2,159? = 100 (L) · What is the value of the 2 in 92,447? = 2000 (U) · What is the value of the 7 in 4,873? = 70 (O) · What is the value of the 4 in 403? = 400 (B)

#### Clue 2 (Addition): "THE SIGHTINGS SHOW A BLACK EYEPATCH"

$397 + 241 = 638$  (T) ·  $230 + 107 = 337$  (I) ·  $346 + 170 = 516$  (O) ·  $587 + 402 = 989$  (W) ·  $191 + 153 = 344$  (Y) ·  $463 + 275 = 738$  (K) ·  $356 + 497 = 853$  (H) ·  $443 + 386 = 829$  (B) ·  $470 + 430 = 900$  (C) ·  $180 + 246 = 426$  (N) ·  $197 + 327 = 524$  (S) ·  $318 + 146 = 464$  (L) ·  $474 + 352 = 826$  (A) ·  $79 + 187 = 266$  (P) ·  $178 + 409 = 587$  (G) ·  $64 + 140 = 204$  (E)

#### Clue 3 (Subtraction): "THEY ARE VERY AFRAID OF HIGH PLACES"

$645 - 128 = 517$  (T) ·  $882 - 280 = 602$  (S) ·  $817 - 101 = 716$  (A) ·  $660 - 135 = 525$  (P) ·  $937 - 225 = 712$  (D) ·  $1021 - 284 = 737$  (F) ·  $523 - 5 = 518$  (H) ·  $182 - 32 = 150$  (C) ·  $665 - 340 = 325$  (R) ·  $501 - 65 = 436$  (Y) ·  $941 - 249 = 692$  (L) ·  $493 - 180 = 313$  (G) ·  $1000 - 200 = 800$  (I) ·  $321 - 108 = 213$  (E) ·  $670 - 67 = 603$  (V) ·  $647 - 180 = 467$  (O)

#### Clue 4 (Rounding): "A STRAND OF BRIGHT BLUE HAIR WAS LEFT"

Round 77 to the nearest ten = 80 (A) · Round 349 to the nearest hundred = 300 (W) · Round 6,645 to the nearest thousand = 7000 (R) · Round 59 to the nearest ten = 60 (H) · Round 8,269 to the nearest thousand = 8000 (O) · Round 9,051 to the nearest thousand = 9000 (I) · Round 174 to the nearest hundred = 200 (D) · Round 3,314 to the nearest thousand = 3000 (L) · Round 86 to the nearest ten = 90 (U) · Round 44 to the nearest ten = 40 (B) · Round 839 to the nearest hundred = 800 (F) · Round 4,589 to the nearest thousand = 5000 (E) · Round 2,071 to the nearest thousand = 2000 (G) · Round 510 to the nearest hundred = 500 (S) · Round 416 to the nearest hundred = 400 (T) · Round 901 to the nearest hundred = 900 (N)

#### Clue 5 (Division facts (1-12)): surviving statement is box 3 → Barnaby Barnacle

$8 \div 8 = 1$  ·  $28 \div 4 = 7$  ·  $36 \div 6 = 6$  ·  $20 \div 10 = 2$  ·  $99 \div 9 = 11$  ·  $60 \div 12 = 5$  ·  $16 \div 2 = 8$  ·  $36 \div 9 = 4$  ·  $60 \div 5 = 12$  ·  $90 \div 9 = 10$  ·  $108 \div 12 = 9$