



# The Whispering Pines Gate Mystery

Grade 6 math · Addition, Subtraction, Rounding, Multiplication, Division · Reading level grades 5-6

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

Someone snuck into the whispering pines sanctuary and opened the main gates! The champion horses have wandered out into the misty valley. The Head Trainer needs your help to identify the Rogue Rider who pulled off this prank before the big parade starts.

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 Rogue Rider is** \_\_\_\_\_

## Possible suspects

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

| NAME        | RIDING STYLE     | FAVORITE TREAT    | STIRRUP BUCKLE      | GROOMING STYLE | LASSO COLOR        |
|-------------|------------------|-------------------|---------------------|----------------|--------------------|
| Cisco       | Show Jumping     | Peppermint Crunch | Brass Clover Buckle | Cropped Mane   | Neon Nylon Lasso   |
| Shadowfax   | Barrel Racing    | Peppermint Crunch | Brass Clover Buckle | Cropped Mane   | Golden Lasso       |
| Phar Lap    | Dressage Mastery | Molasses Oat      | Silver Star Buckle  | Loose Mane     | Golden Lasso       |
| Barbaro     | Show Jumping     | Crisp Carrot      | Silver Star Buckle  | Loose Mane     | Golden Lasso       |
| Secretariat | Barrel Racing    | Sweet Apple       | Brass Clover Buckle | Cropped Mane   | Golden Lasso       |
| Trigger     | Show Jumping     | Peppermint Crunch | Brass Clover Buckle | Cropped Mane   | Braided Hemp Lasso |
| Flicka      | Trick Vaulting   | Sweet Apple       | Brass Clover Buckle | Loose Mane     | Golden Lasso       |
| Eclipse     | Barrel Racing    | Sweet Apple       | Silver Star Buckle  | Cropped Mane   | Braided Hemp Lasso |
| Man o War   | Trick Vaulting   | Peppermint Crunch | Brass Clover Buckle | Braided Mane   | Golden Lasso       |
| Socks       | Dressage Mastery | Peppermint Crunch | Silver Star Buckle  | Braided Mane   | Golden Lasso       |
| Champion    | Show Jumping     | Crisp Carrot      | Brass Clover Buckle | Loose Mane     | Neon Nylon Lasso   |
| Silver      | Show Jumping     | Crisp Carrot      | Brass Clover Buckle | Loose Mane     | Golden Lasso       |
| Rupert      | Barrel Racing    | Molasses Oat      | Brass Clover Buckle | Loose Mane     | Golden Lasso       |
| Comanche    | Barrel Racing    | Peppermint Crunch | Brass Clover Buckle | Loose Mane     | Golden Lasso       |
| Red Rum     | Show Jumping     | Sweet Apple       | Brass Clover Buckle | Loose Mane     | Golden Lasso       |
| Seabiscuit  | Trail Blazing    | Sugar Cube        | Brass Clover Buckle | Loose Mane     | Braided Hemp Lasso |
| Pegasus     | Dressage Mastery | Sweet Apple       | Silver Star Buckle  | Loose Mane     | Golden Lasso       |
| Barnaby     | Dressage Mastery | Sugar Cube        | Brass Clover Buckle | Loose Mane     | Neon Nylon Lasso   |
| Bucephalus  | Show Jumping     | Crisp Carrot      | Silver Star Buckle  | Loose Mane     | Braided Hemp Lasso |
| Bullseye    | Dressage Mastery | Molasses Oat      | Brass Clover Buckle | Braided Mane   | Golden Lasso       |
| Artax       | Dressage Mastery | Peppermint Crunch | Silver Star Buckle  | Braided Mane   | Neon Nylon Lasso   |

## CLUE 1 Addition

The stable hands count up the leftover saddles in the tack room. Adding the English and Western saddles together reveals a clue about the thief.

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

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| T    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4380 | 6178 | 3115 | 8338 | 4119 | 2311 | 2311 | 9004 | 4119 | 9131 | 4213 | 4119 | 7938 | 2311 | 4119 | 5513 | 3115 | 7938 |

  

|      |      |      |      |      |      |      |      |      |      |      |   |
|------|------|------|------|------|------|------|------|------|------|------|---|
|      |      |      |      |      |      |      |      |      |      |      | T |
| 7299 | 4060 | 2311 | 9004 | 7938 | 7938 | 3115 | 7938 | 4060 | 9004 | 4380 |   |

$$2577 + 1803 = \boxed{\phantom{000}} \rightarrow \boxed{\text{T}}$$

$$3843 + 5161 = \boxed{\phantom{000}} \rightarrow \boxed{\text{A}}$$

$$3434 + 2744 = \boxed{\phantom{000}} \rightarrow \boxed{\text{H}}$$

$$1798 + 1317 = \boxed{\phantom{000}} \rightarrow \boxed{\text{E}}$$

$$3758 + 4180 = \boxed{\phantom{000}} \rightarrow \boxed{\text{S}}$$

$$3751 + 4587 = \boxed{\phantom{000}} \rightarrow \boxed{\text{V}}$$

$$1540 + 2579 = \boxed{\phantom{000}} \rightarrow \boxed{\text{I}}$$

$$3124 + 2389 = \boxed{\phantom{000}} \rightarrow \boxed{\text{K}}$$

$$4054 + 3245 = \boxed{\phantom{000}} \rightarrow \boxed{\text{M}}$$

$$751 + 1560 = \boxed{\phantom{000}} \rightarrow \boxed{\text{L}}$$

$$3425 + 5706 = \boxed{\phantom{000}} \rightarrow \boxed{\text{N}}$$

$$1954 + 2259 = \boxed{\phantom{000}} \rightarrow \boxed{\text{D}}$$

$$2390 + 1670 = \boxed{\phantom{000}} \rightarrow \boxed{\text{O}}$$

Scratch space:

## CLUE 2 Subtraction

We check the feed bin levels to see how much grain was taken. Subtracting the spilled grain from the total amount gives us a key piece of evidence.

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

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| T    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4255 | 2124 | 6665 | 6588 | 4673 | 6588 | 2278 | 6665 | 2673 | 4255 | 4673 | 6588 | 6665 | 4624 | 4090 |      |      |
|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2929 | 2495 | 4090 | 6588 | 6588 | 2673 | 3193 | 8089 | 5867 | 6665 | 2495 | 2929 | 4673 | 2673 | 1338 | 3193 | 6665 |

|                                               |                                               |                                                |
|-----------------------------------------------|-----------------------------------------------|------------------------------------------------|
| 5908 - 1653 = <input type="text"/> → <b>T</b> | 4447 - 357 = <input type="text"/> → <b>A</b>  | 6812 - 147 = <input type="text"/> → <b>E</b>   |
| 5699 - 3026 = <input type="text"/> → <b>C</b> | 5920 - 3796 = <input type="text"/> → <b>H</b> | 7133 - 4204 = <input type="text"/> → <b>B</b>  |
| 9010 - 4337 = <input type="text"/> → <b>U</b> | 3244 - 1906 = <input type="text"/> → <b>K</b> | 7203 - 2579 = <input type="text"/> → <b>D</b>  |
| 9727 - 1638 = <input type="text"/> → <b>O</b> | 5804 - 3526 = <input type="text"/> → <b>P</b> | 6706 - 4211 = <input type="text"/> → <b>R</b>  |
| 7666 - 4473 = <input type="text"/> → <b>L</b> | 9534 - 3667 = <input type="text"/> → <b>V</b> | 10497 - 3909 = <input type="text"/> → <b>S</b> |

Scratch space:

### CLUE 3 Rounding

The digital gate timer only shows rounded whole minutes. Rounding the gate lock telemetry time to the nearest ten reveals exactly when the suspect fled.

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

|     |      |      |     |      |      |      |      |     |      |      |    |      |     |     |      |      |      |      |
|-----|------|------|-----|------|------|------|------|-----|------|------|----|------|-----|-----|------|------|------|------|
| A   |      |      |     |      |      |      |      | A   |      |      |    |      |     |     |      |      |      |      |
| 30  | 1100 | 20   | 500 | 2000 | 4300 | 1700 | 500  | 30  | 3000 | 3000 | 20 | 3700 | 170 | 700 | 7000 | 7000 | 4300 | 2000 |
|     |      |      |     |      |      |      |      |     |      |      |    |      |     |     |      |      |      |      |
| 290 | 7000 | 3700 | 110 | 4300 | 170  | 20   | 1100 | 290 | 4300 |      |    |      |     |     |      |      |      |      |

Round 27 to the nearest ten  → **A**

Round 3,685 to the nearest hundred  → **T**

Round 2,222 to the nearest thousand  → **D**

Round 6,699 to the nearest thousand  → **P**

Round 1,084 to the nearest hundred  → **G**

Round 527 to the nearest hundred  → **L**

Round 2,668 to the nearest thousand  → **S**

Round 20 to the nearest ten  → **O**

Round 107 to the nearest ten  → **H**

Round 291 to the nearest ten  → **U**

Round 174 to the nearest ten  → **R**

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

Round 4,305 to the nearest hundred  → **E**

Round 1,691 to the nearest hundred  → **N**

Scratch space:

## CLUE 4

## Multiplication facts (1-12)

The horseshoes are stacked in neat rows on the wall. Multiplying the number of rows by the shoes in each row uncovers a hidden message.

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

|   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| L |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| 2 | 24 | 24 | 28 | 12 | 25 | 56 | 15 | 12 | 45 | 56 | 21 | 11 | 28 | 22 | 12 | 11 | 12 |  |  |

  

|   |    |   |    |    |    |    |    |    |   |    |    |    |    |  |
|---|----|---|----|----|----|----|----|----|---|----|----|----|----|--|
| L |    |   |    |    |    |    |    |    | L |    |    |    |    |  |
| 2 | 12 | 1 | 54 | 24 | 15 | 54 | 45 | 12 | 2 | 56 | 54 | 60 | 45 |  |

$2 \times 1 = \square \rightarrow \boxed{\text{L}}$

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

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

$5 \times 5 = \square \rightarrow \boxed{\text{M}}$

$3 \times 5 = \square \rightarrow \boxed{\text{N}}$

$1 \times 1 = \square \rightarrow \boxed{\text{F}}$

$10 \times 6 = \square \rightarrow \boxed{\text{C}}$

$9 \times 5 = \square \rightarrow \boxed{\text{H}}$

$7 \times 3 = \square \rightarrow \boxed{\text{I}}$

$1 \times 11 = \square \rightarrow \boxed{\text{R}}$

$9 \times 6 = \square \rightarrow \boxed{\text{T}}$

$8 \times 3 = \square \rightarrow \boxed{\text{O}}$

$8 \times 7 = \square \rightarrow \boxed{\text{A}}$

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

Scratch space:

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

The trail guide splits the grooming brushes equally among the student riders. Dividing the brush pile tells us which suspect left the arena.

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:**

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

$14 \div 2 = \boxed{\phantom{00}}$

$30 \div 5 = \boxed{\phantom{00}}$

$80 \div 8 = \boxed{\phantom{00}}$

$96 \div 12 = \boxed{\phantom{00}}$

$10 \div 2 = \boxed{\phantom{00}}$

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

$6 \div 2 = \boxed{\phantom{00}}$

$14 \div 7 = \boxed{\phantom{00}}$

$24 \div 6 = \boxed{\phantom{00}}$

$72 \div 8 = \boxed{\phantom{00}}$

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

1. The villain weaves through the barrel course, then crunches a peppermint treat.
2. The villain leaps over the pasture fence, then snacking on a sweet oat bar.
3. The villain weaves through the barrel course, then bites into a juicy red apple.
4. The villain leaps over the pasture fence, then drops a tiny square sugar cube.
5. The villain stands on a galloping horse, then crunches a peppermint treat.
6. The villain leaps over the pasture fence, then bites into a juicy red apple.
7. The villain leaps over the pasture fence, then munching on a fresh orange carrot.
8. The villain follows the winding forest path, then snacking on a sweet oat bar.
9. The villain follows the winding forest path, then bites into a juicy red apple.
10. The villain leaps over the pasture fence, then crunches a peppermint treat.
11. The villain stands on a galloping horse, then bites into a juicy red apple.
12. The villain performs a flawless trot, then bites into a juicy red apple.

# Answer Key

## The Whispering Pines Gate Mystery

### Culprit: Flicka

Trick Vaulting · Sweet Apple · Brass Clover Buckle · Loose Mane · Golden Lasso

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

### Clue 1 (Addition): "THE VILLAIN DISLIKES MOLASSES OAT"

$2577 + 1803 = 4380$  (T) ·  $3843 + 5161 = 9004$  (A) ·  $3434 + 2744 = 6178$  (H) ·  $1798 + 1317 = 3115$  (E) ·  $3758 + 4180 = 7938$  (S) ·  $3751 + 4587 = 8338$  (V) ·  $1540 + 2579 = 4119$  (I) ·  $3124 + 2389 = 5513$  (K) ·  $4054 + 3245 = 7299$  (M) ·  $751 + 1560 = 2311$  (L) ·  $3425 + 5706 = 9131$  (N) ·  $1954 + 2259 = 4213$  (D) ·  $2390 + 1670 = 4060$  (O)

### Clue 2 (Subtraction): "THE SUSPECT USED A BRASS CLOVER BUCKLE"

$5908 - 1653 = 4255$  (T) ·  $4447 - 357 = 4090$  (A) ·  $6812 - 147 = 6665$  (E) ·  $5699 - 3026 = 2673$  (C) ·  $5920 - 3796 = 2124$  (H) ·  $7133 - 4204 = 2929$  (B) ·  $9010 - 4337 = 4673$  (U) ·  $3244 - 1906 = 1338$  (K) ·  $7203 - 2579 = 4624$  (D) ·  $9727 - 1638 = 8089$  (O) ·  $5804 - 3526 = 2278$  (P) ·  $6706 - 4211 = 2495$  (R) ·  $7666 - 4473 = 3193$  (L) ·  $9534 - 3667 = 5867$  (V) ·  $10497 - 3909 = 6588$  (S)

### Clue 3 (Rounding): "A GOLDEN LASSO TRIPPED UP THE ROGUE"

Round 27 to the nearest ten = 30 (A) · Round 3,685 to the nearest hundred = 3700 (T) · Round 2,222 to the nearest thousand = 2000 (D) · Round 6,699 to the nearest thousand = 7000 (P) · Round 1,084 to the nearest hundred = 1100 (G) · Round 527 to the nearest hundred = 500 (L) · Round 2,668 to the nearest thousand = 3000 (S) · Round 20 to the nearest ten = 20 (O) · Round 107 to the nearest ten = 110 (H) · Round 291 to the nearest ten = 290 (U) · Round 174 to the nearest ten = 170 (R) · Round 739 to the nearest hundred = 700 (I) · Round 4,305 to the nearest hundred = 4300 (E) · Round 1,691 to the nearest hundred = 1700 (N)

### Clue 4 (Multiplication facts (1-12)): "LOOSE MANE HAIRS WERE LEFT ON THE LATCH"

$2 \times 1 = 2$  (L) ·  $11 \times 2 = 22$  (W) ·  $6 \times 2 = 12$  (E) ·  $5 \times 5 = 25$  (M) ·  $3 \times 5 = 15$  (N) ·  $1 \times 1 = 1$  (F) ·  $10 \times 6 = 60$  (C) ·  $9 \times 5 = 45$  (H) ·  $7 \times 3 = 21$  (I) ·  $1 \times 11 = 11$  (R) ·  $9 \times 6 = 54$  (T) ·  $8 \times 3 = 24$  (O) ·  $8 \times 7 = 56$  (A) ·  $4 \times 7 = 28$  (S)

### Clue 5 (Division facts (1-12)): surviving statement is box 11 → Flicka

$2 \div 2 = 1$  ·  $14 \div 2 = 7$  ·  $30 \div 5 = 6$  ·  $80 \div 8 = 10$  ·  $96 \div 12 = 8$  ·  $10 \div 2 = 5$  ·  $60 \div 5 = 12$  ·  $6 \div 2 = 3$  ·  $14 \div 7 = 2$  ·  $24 \div 6 = 4$  ·  $72 \div 8 = 9$