



Mystery at Whispering Pines Ranch

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

Detective: _____ **Date:** _____

Someone unlatched the arena gates right before the Grand Championship horse show! Use your math skills and deductive reasoning to identify the culprit before the final trophy is awarded.

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	SADDLE STYLE	HORSE TACK	REIN GRIP	HAIR COLOR	DISTRACTION
Nico Nash	Bareback Pad	Silver Bridle	Right Handed Grip	Jet Black Hair	Squeaky Boots
Quinn Ridge	Western Saddle	Golden Spurs	Left Handed Grip	Auburn Mane Hair	Shiny Apples
Sierra Stone	Bareback Pad	Golden Spurs	Right Handed Grip	Auburn Mane Hair	Squeaky Boots
Uma Vale	Dressage Saddle	Rope Halter	Right Handed Grip	Blonde Braid	Shiny Apples
Logan Lane	Jumping Saddle	Leather Reins	Right Handed Grip	Auburn Mane Hair	Squeaky Boots
Kelsey King	Western Saddle	Silver Bridle	Right Handed Grip	Blonde Braid	Squeaky Boots
Foster Fields	Bareback Pad	Braided Whip	Left Handed Grip	Auburn Mane Hair	Squeaky Boots
Mona Meadow	Western Saddle	Rope Halter	Right Handed Grip	Blonde Braid	Rustling Hay
Ivy Irons	Jumping Saddle	Silver Bridle	Right Handed Grip	Auburn Mane Hair	Shiny Apples
Gemma Green	Sidesaddle	Silver Bridle	Right Handed Grip	Auburn Mane Hair	Squeaky Boots
Xavier Woods	Sidesaddle	Rope Halter	Left Handed Grip	Jet Black Hair	Shiny Apples
Piper Pine	Jumping Saddle	Silver Bridle	Right Handed Grip	Blonde Braid	Squeaky Boots
Jasper Justice	Western Saddle	Silver Bridle	Right Handed Grip	Auburn Mane Hair	Squeaky Boots
Victor Valley	Bareback Pad	Leather Reins	Left Handed Grip	Jet Black Hair	Shiny Apples
Toby Trail	Jumping Saddle	Golden Spurs	Right Handed Grip	Blonde Braid	Squeaky Boots
Dakota Dale	Western Saddle	Golden Spurs	Right Handed Grip	Auburn Mane Hair	Rustling Hay
Hunter Hayes	Bareback Pad	Braided Whip	Right Handed Grip	Auburn Mane Hair	Squeaky Boots
Riley River	Bareback Pad	Rope Halter	Right Handed Grip	Blonde Braid	Squeaky Boots
Willa West	Dressage Saddle	Golden Spurs	Right Handed Grip	Auburn Mane Hair	Squeaky Boots
Yara York	Bareback Pad	Rope Halter	Right Handed Grip	Jet Black Hair	Squeaky Boots
Elena East	Dressage Saddle	Silver Bridle	Right Handed Grip	Blonde Braid	Squeaky Boots

CLUE 1

You examine the digit codes on the stable locker pads to identify which tack room was opened.

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

A number line from 0 to 10,000. The line is marked with the following numbers in boxes: 400, 7000, 2000, 40, 20, 90, 90, 70, 20, 30, 9000, 8000, 2000, 700, 30, 8000, 400. The number 400 is highlighted in orange.

What is the value of the 4 in 56,465?

What is the value of the 4 in 394,221?

A diagram consisting of a rectangular box on the left, followed by a right-pointing arrow, and then another rectangular box on the right containing the letter 'R'.

What is the value of the 3 in 408,037?

□ → **N**

What is the value of the 9 in 745,593?

? → **L**

What is the value of the 7 in 30,271?

A diagram consisting of a rectangular box on the left, followed by a right-pointing arrow, and then another rectangular box on the right containing the letter 'A'.

What is the value of the 8 in 58,903?

→

What is the value of the 6 in 195,640?

$\square \rightarrow \mathbf{U}$

What is the value of the 4 in 280,840?

? $\rightarrow$ v

What is the value of the 3 in 23,487?

→ **G**

What is the value of the 2 in 397,024?

A diagram showing a transformation. On the left is a rounded rectangular box containing a question mark (?). An arrow points to the right, where another rounded rectangular box contains a minus sign (-).

What is the value of the 7 in 591,794?

□ → **S**

What is the value of the 8 in 59,487?

What is the value of the 7 in 37,984?

→ **H**

What is the value of the 6 in 156,343?

What is the value of the 2 in 72,081?

What is the value of the 9 in 19,515?

→ **D**

Scratch space:

CLUE 2

You add up the weight of all the horseshoe supplies collected near the arena gate.

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

The diagram consists of two rows of boxes, each representing a sequence of numbers. The top row has 15 boxes, and the bottom row has 12 boxes. Below each box is a number. Some boxes are shaded orange and contain the letter 'T', indicating a specific state or value.

Top Row:

- Box 1: Orange, contains 'T'. Number: 3933
- Box 2: White. Number: 7307
- Box 3: White. Number: 2702
- Box 4: White. Number: 6796
- Box 5: White. Number: 5977
- Box 6: White. Number: 6796
- Box 7: White. Number: 3740
- Box 8: White. Number: 2702
- Box 9: White. Number: 9085
- Box 10: Orange, contains 'T'. Number: 3933
- Box 11: White. Number: 7307
- Box 12: White. Number: 5844
- Box 13: White. Number: 9461
- Box 14: White. Number: 3721
- Box 15: White. Number: 6796

Bottom Row:

- Box 1: White. Number: 7426
- Box 2: White. Number: 3062
- Box 3: Orange, contains 'T'. Number: 3933
- Box 4: White. Number: 7307
- Box 5: White. Number: 4239
- Box 6: White. Number: 3062
- Box 7: White. Number: 6633
- Box 8: White. Number: 7307
- Box 9: Orange, contains 'T'. Number: 3933
- Box 10: White. Number: 7307
- Box 11: White. Number: 3420
- Box 12: White. Number: 5909
- Box 13: White. Number: 3721

$2398 + 1535 = \boxed{} \rightarrow \boxed{\text{T}}$

$$2406 + 5020 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$1343 + 1719 = \boxed{} \rightarrow \boxed{}$

$1472 + 1230 = \boxed{} \rightarrow \boxed{\text{E}}$

$$2565 + 3344 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$2596 + 1643 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$2792 + 4515 = \boxed{} \rightarrow \boxed{\text{H}}$$

$2073 + 4560 = \boxed{} \rightarrow \boxed{\text{G}}$

$$2158 + 1582 = \boxed{} \rightarrow \boxed{\text{P}}$$

$1758 + 1662 = \boxed{} \rightarrow \boxed{\text{A}}$

$$6583 + 2878 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$2974 + 3003 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$3039 + 2805 = \boxed{} \rightarrow \boxed{0}$$

$$6176 + 2909 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$4419 + 2377 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$1829 + 1892 = \boxed{} \rightarrow \boxed{\text{D}}$$

Scratch space:

CLUE 3

Subtraction

You calculate the number of grooming brushes missing from the central barn kit.

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

S											S	S						
5707	5891	2133	7248	8834	2960	8784	7662	1919	1919	6651	5707	5707	6651	8834	3391	6651	7132	7248

			S		S				
6651	8105	7248	5707	2133	5707	6900	7248	8437	6651

$8129 - 2422 = \square \rightarrow \boxed{\text{S}}$

$6375 - 3415 = \square \rightarrow \boxed{\text{K}}$

$11757 - 3320 = \square \rightarrow \boxed{\text{C}}$

$11519 - 4271 = \square \rightarrow \boxed{\text{E}}$

$9416 - 1754 = \square \rightarrow \boxed{\text{B}}$

$11573 - 4922 = \square \rightarrow \boxed{\text{T}}$

$8798 - 693 = \square \rightarrow \boxed{\text{H}}$

$13152 - 4368 = \square \rightarrow \boxed{\text{Y}}$

$6356 - 465 = \square \rightarrow \boxed{\text{Q}}$

$9351 - 2451 = \square \rightarrow \boxed{\text{P}}$

$4751 - 1360 = \square \rightarrow \boxed{\text{R}}$

$7033 - 4900 = \square \rightarrow \boxed{\text{U}}$

$8052 - 920 = \square \rightarrow \boxed{\text{L}}$

$9566 - 732 = \square \rightarrow \boxed{\text{A}}$

$5654 - 3735 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

You multiply the rows of hay bales stacked along the barn aisle to verify inventory.

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

A								A					A					A	
5	70	8	70	1	72	120	5	72	35	64	5	54	1	15	5	60			

					A								
84	11	70	72	33	5	121	60	42	35	72	35		

$5 \times 1 = \square \rightarrow \boxed{\text{A}}$

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

$8 \times 9 = \square \rightarrow \boxed{\text{N}}$

$10 \times 7 = \square \rightarrow \boxed{\text{U}}$

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

$6 \times 7 = \square \rightarrow \boxed{\text{C}}$

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

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

$8 \times 8 = \square \rightarrow \boxed{\text{H}}$

$2 \times 4 = \square \rightarrow \boxed{\text{B}}$

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

$3 \times 11 = \square \rightarrow \boxed{\text{D}}$

$12 \times 10 = \square \rightarrow \boxed{\text{M}}$

$5 \times 7 = \square \rightarrow \boxed{\text{E}}$

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

$7 \times 12 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

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

You divide the treats equally among the stalls to review the feeding log.

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:

$24 \div 6 = \boxed{}$

$42 \div 6 = \boxed{}$

$33 \div 3 = \boxed{}$

$10 \div 10 = \boxed{}$

$81 \div 9 = \boxed{}$

$24 \div 12 = \boxed{}$

$56 \div 7 = \boxed{}$

$42 \div 7 = \boxed{}$

$60 \div 12 = \boxed{}$

$108 \div 9 = \boxed{}$

$80 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain buckled the jumping saddle, then cleaned the silver bridle.
2. The villain strapped on the bareback pad, then tied the rope halter.
3. The villain strapped on the bareback pad, then cracked the braided whip.
4. The villain secured the sidesaddle, then cleaned the silver bridle.
5. The villain adjusted the dressage saddle, then cleaned the silver bridle.
6. The villain buckled the jumping saddle, then polished the golden spurs.
7. The villain buckled the jumping saddle, then unhooked the leather reins.
8. The villain secured the sidesaddle, then cracked the braided whip.
9. The villain adjusted the dressage saddle, then polished the golden spurs.
10. The villain polished the western saddle, then tied the rope halter.
11. The villain polished the western saddle, then cleaned the silver bridle.
12. The villain secured the sidesaddle, then tied the rope halter.

Answer Key

Mystery at Whispering Pines Ranch

Culprit: Hunter Hayes

Bareback Pad · Braided Whip · Right Handed Grip · Auburn Mane Hair · Squeaky Boots

Trail: Start 21 → Clue 1 16 → Clue 2 13 → Clue 3 10 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT WEAR GOLDEN SPURS"

What is the value of the 4 in 56,465? = 400 (T) · What is the value of the 4 in 394,221? = 4000 (R) · What is the value of the 3 in 408,037? = 30 (N) · What is the value of the 9 in 745,593? = 90 (L) · What is the value of the 7 in 30,271? = 70 (A) · What is the value of the 8 in 58,903? = 8000 (O) · What is the value of the 6 in 195,640? = 600 (U) · What is the value of the 4 in 280,840? = 40 (V) · What is the value of the 3 in 23,487? = 3000 (G) · What is the value of the 2 in 397,024? = 20 (I) · What is the value of the 7 in 591,794? = 700 (S) · What is the value of the 8 in 59,487? = 80 (W) · What is the value of the 7 in 37,984? = 7000 (H) · What is the value of the 6 in 156,343? = 6000 (P) · What is the value of the 2 in 72,081? = 2000 (E) · What is the value of the 9 in 19,515? = 9000 (D)

Clue 2 (Addition): "THE SUSPECT HOLDS REINS WITH RIGHT HAND"

2398 + 1535 = 3933 (T) · 2406 + 5020 = 7426 (W) · 1343 + 1719 = 3062 (I) · 1472 + 1230 = 2702 (E) · 2565 + 3344 = 5909 (N) · 2596 + 1643 = 4239 (R) · 2792 + 4515 = 7307 (H) · 2073 + 4560 = 6633 (G) · 2158 + 1582 = 3740 (P) · 1758 + 1662 = 3420 (A) · 6583 + 2878 = 9461 (L) · 2974 + 3003 = 5977 (U) · 3039 + 2805 = 5844 (O) · 6176 + 2909 = 9085 (C) · 4419 + 2377 = 6796 (S) · 1829 + 1892 = 3721 (D)

Clue 3 (Subtraction): "SQUEAKY BOOTS STARTLE THE SUSPECT"

8129 - 2422 = 5707 (S) · 6375 - 3415 = 2960 (K) · 11757 - 3320 = 8437 (C) · 11519 - 4271 = 7248 (E) · 9416 - 1754 = 7662 (B) · 11573 - 4922 = 6651 (T) · 8798 - 693 = 8105 (H) · 13152 - 4368 = 8784 (Y) · 6356 - 465 = 5891 (Q) · 9351 - 2451 = 6900 (P) · 4751 - 1360 = 3391 (R) · 7033 - 4900 = 2133 (U) · 8052 - 920 = 7132 (L) · 9566 - 732 = 8834 (A) · 5654 - 3735 = 1919 (O)

Clue 4 (Multiplication facts (1-12)): "AUBURN MANE HAIR WAS FOUND AT SCENE"

$5 \times 1 = 5$ (A) · $11 \times 11 = 121$ (T) · $8 \times 9 = 72$ (N) · $10 \times 7 = 70$ (U) · $6 \times 9 = 54$ (I) · $6 \times 7 = 42$ (C) · $6 \times 10 = 60$ (S) · $5 \times 3 = 15$ (W) · $8 \times 8 = 64$ (H) · $2 \times 4 = 8$ (B) · $1 \times 1 = 1$ (R) · $3 \times 11 = 33$ (D) · $12 \times 10 = 120$ (M) · $5 \times 7 = 35$ (E) · $1 \times 11 = 11$ (O) · $7 \times 12 = 84$ (F)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Hunter Hayes

$24 \div 6 = 4$ · $42 \div 6 = 7$ · $33 \div 3 = 11$ · $10 \div 10 = 1$ · $81 \div 9 = 9$ · $24 \div 12 = 2$ · $56 \div 7 = 8$ · $42 \div 7 = 6$ · $60 \div 12 = 5$ · $108 \div 9 = 12$ · $80 \div 8 = 10$