The Mystery of the Missing Golden Horseshoe

Grade 2 math · Place value, Addition, Word problems, Subtraction, Missing addends · Reading level grades 1-2

Detective: _____ **Date:** _____

Someone snuck into Sunnyside Pony Ranch and took the Golden Horseshoe trophy! The Head Trainer needs your help to find out who did it.

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 Pony Prankster 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	RIDING GEAR	DOMINANT HAND	HELMET COLOR	PONY TREAT
Pippa Trotter	Dressage	Saddle Bag	Right Handed	Red Helmet	Crunchy Carrot
Olive Oat	Trail Riding	Silver Spurs	Left Handed	Red Helmet	Sugar Cube
Hattie Hay	Vaulting	Leather Boots	Right Handed	Blue Helmet	Crunchy Carrot
Penny Paddock	Trail Riding	Leather Boots	Right Handed	Green Helmet	Sweet Apple
Maya Mustang	Vaulting	Leather Boots	Right Handed	Green Helmet	Sweet Apple
Nico Neigh	Trail Riding	Leather Boots	Right Handed	Red Helmet	Crunchy Carrot
Fiona Foal	Vaulting	Leather Boots	Left Handed	Red Helmet	Crunchy Carrot
Vince Vault	Barrel Racing	Leather Boots	Right Handed	Red Helmet	Crunchy Carrot
Daisy Dale	Jumping	Fancy Bridle	Left Handed	Red Helmet	Crunchy Carrot
Molly Mane	Jumping	Leather Boots	Left Handed	Green Helmet	Sugar Cube
Silas Stirrup	Jumping	Silver Spurs	Right Handed	Red Helmet	Sugar Cube
Tess Trot	Jumping	Riding Crop	Right Handed	Green Helmet	Crunchy Carrot
Rory Rider	Barrel Racing	Leather Boots	Right Handed	Green Helmet	Crunchy Carrot
Barnaby Barns	Trail Riding	Silver Spurs	Right Handed	Red Helmet	Sugar Cube
Rosie Rein	Vaulting	Fancy Bridle	Right Handed	Red Helmet	Crunchy Carrot
Colt Cooper	Barrel Racing	Fancy Bridle	Left Handed	Red Helmet	Crunchy Carrot
Bella Bridle	Vaulting	Riding Crop	Right Handed	Green Helmet	Sweet Apple
Willa Whinny	Barrel Racing	Riding Crop	Right Handed	Red Helmet	Crunchy Carrot
Sammy Saddle	Dressage	Riding Crop	Left Handed	Red Helmet	Sugar Cube
Charlie Clover	Jumping	Riding Crop	Right Handed	Red Helmet	Sweet Apple
Pete Pony	Barrel Racing	Leather Boots	Right Handed	Blue Helmet	Sugar Cube

CLUE 1 Place value

You check the place value chart on the barn door to read the first clue.

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

T																		T	
20	64	58	42	74	72	72	78	74	31	46	86	58	92	31	86	20			
64	78	42	58	78	61	78	31	99	29	89	71	74	46	72	58				

What number has 2 tens and 0 ones? ☐ → T

What number has 8 tens and 6 ones? ☐ → O

What number has 5 tens and 8 ones? ☐ → E

What number has 8 tens and 9 ones? ☐ → B

What number has 9 tens and 9 ones? ☐ → C

What number has 3 tens and 1 one? ☐ → N

What number has 7 tens and 4 ones? ☐ → I

What number has 6 tens and 1 one? ☐ → F

What number has 4 tens and 6 ones? ☐ → D

What number has 9 tens and 2 ones? ☐ → S

What number has 2 tens and 9 ones? ☐ → Y

What number has 7 tens and 1 one? ☐ → R

What number has 7 tens and 2 ones? ☐ → L

What number has 6 tens and 4 ones? ☐ → H

What number has 4 tens and 2 ones? ☐ → V

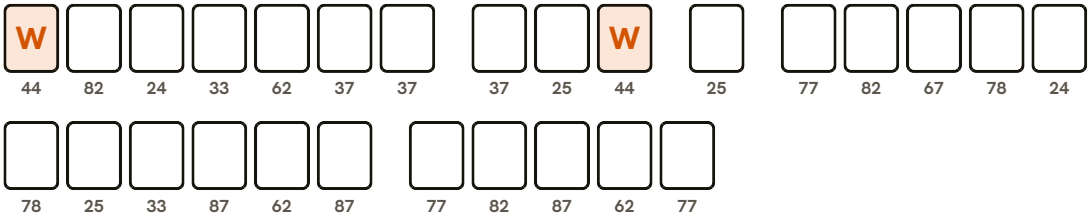
What number has 7 tens and 8 ones? ☐ → A

Scratch space:

CLUE 2 Addition

You add up the fresh horseshoe marks in the arena dirt to spot a lead.

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



25 + 19 = ☐ → **W**

33 + 29 = ☐ → **E**

40 + 42 = ☐ → **I**

10 + 14 = ☐ → **T**

18 + 7 = ☐ → **A**

20 + 47 = ☐ → **G**

9 + 24 = ☐ → **N**

24 + 54 = ☐ → **H**

14 + 23 = ☐ → **S**

54 + 33 = ☐ → **D**

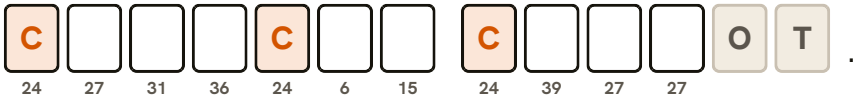
51 + 26 = ☐ → **R**

Scratch space:

CLUE 3 Word problems

The stable hand tells a quick story problem about the missing trophy.

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

Someone scared the villain off with 

.

Stable hand lined up 12 rows of 2 brushes. How many brushes in all?

Answer: ☐ → **C**

There were 47 ribbons. 8 were used up. How many ribbons are left?

Answer: ☐ → **A**

There were 24 carrots. 9 were used up. How many carrots are left?

Answer: ☐ → **Y**

There were 30 carrots. 3 were used up. How many carrots are left?

Answer: ☐ → **R**

Stable hand lined up 9 rows of 4 apples. How many apples in all?

Answer: ☐ → **N**

Stable hand lined up 3 rows of 2 carrots. How many carrots in all?

Answer: ☐ → **H**

There were 37 carrots. 6 were used up. How many carrots are left?

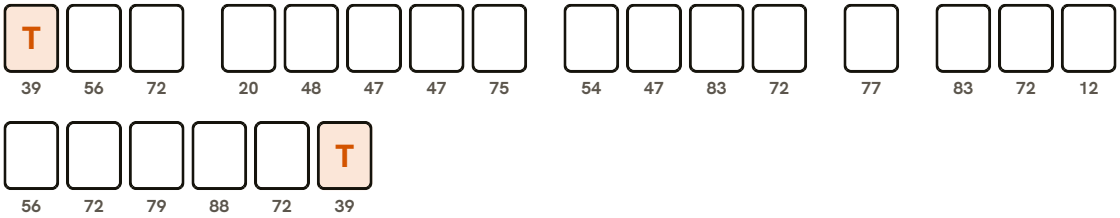
Answer: ☐ → **U**

Scratch space:

CLUE 4 Subtraction

You subtract the used grooming brushes to find the next secret trace.

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



66 - 27 = ☐ → T

101 - 22 = ☐ → L

16 - 4 = ☐ → D

81 - 33 = ☐ → N

90 - 34 = ☐ → H

31 - 11 = ☐ → S

80 - 8 = ☐ → E

103 - 20 = ☐ → R

117 - 29 = ☐ → M

67 - 13 = ☐ → W

66 - 19 = ☐ → O

115 - 40 = ☐ → P

80 - 3 = ☐ → A

Scratch space:

CLUE 5 Missing addends - the last clue

You figure out how many oat sacks are missing to reveal the last clue.

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:

5 + ___ = 12 ☐	1 + ___ = 3 ☐	9 + ___ = 10 ☐	1 + ___ = 7 ☐
3 + ___ = 12 ☐	2 + ___ = 13 ☐	3 + ___ = 13 ☐	2 + ___ = 14 ☐
2 + ___ = 5 ☐	5 + ___ = 9 ☐	3 + ___ = 8 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain zipped around the bright barrels, then cleaned off heavy leather boots.
2. The villain danced across the main arena, then packed snacks in a saddle bag.
3. The villain performed tricks on horseback, then packed snacks in a saddle bag.
4. The villain leaped over the paddock fence, then cleaned off heavy leather boots.
5. The villain leaped over the paddock fence, then waved a small riding crop.
6. The villain leaped over the paddock fence, then adjusted a shiny fancy bridle.
7. The villain trotted down the muddy trail, then cleaned off heavy leather boots.
8. The villain zipped around the bright barrels, then waved a small riding crop.
9. The villain danced across the main arena, then waved a small riding crop.
10. The villain trotted down the muddy trail, then packed snacks in a saddle bag.
11. The villain danced across the main arena, then adjusted a shiny fancy bridle.
12. The villain zipped around the bright barrels, then packed snacks in a saddle bag.

TEACHER / PARENT

Answer Key

The Mystery of the Missing Golden Horseshoe

Culprit: Willa Whinny

Barrel Racing · Riding Crop · Right Handed · Red Helmet · Crunchy Carrot

Trail: Start 21 → Clue 1 18 → Clue 2 14 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT HAVE A FANCY BRIDLE"

What number has 2 tens and 0 ones? = 20 (T) · What number has 8 tens and 6 ones? = 86 (O) · What number has 5 tens and 8 ones? = 58 (E) · What number has 8 tens and 9 ones? = 89 (B) · What number has 9 tens and 9 ones? = 99 (C) · What number has 3 tens and 1 one? = 31 (N) · What number has 7 tens and 4 ones? = 74 (I) · What number has 6 tens and 1 one? = 61 (F) · What number has 4 tens and 6 ones? = 46 (D) · What number has 9 tens and 2 ones? = 92 (S) · What number has 2 tens and 9 ones? = 29 (Y) · What number has 7 tens and 1 one? = 71 (R) · What number has 7 tens and 2 ones? = 72 (L) · What number has 6 tens and 4 ones? = 64 (H) · What number has 4 tens and 2 ones? = 42 (V) · What number has 7 tens and 8 ones? = 78 (A)

Clue 2 (Addition): "WITNESS SAW A RIGHT HANDED RIDER"

25 + 19 = 44 (W) · 33 + 29 = 62 (E) · 40 + 42 = 82 (I) · 10 + 14 = 24 (T) · 18 + 7 = 25 (A) · 20 + 47 = 67 (G) · 9 + 24 = 33 (N) · 24 + 54 = 78 (H) · 14 + 23 = 37 (S) · 54 + 33 = 87 (D) · 51 + 26 = 77 (R)

Clue 3 (Word problems): "CRUNCHY CARROT"

Stable hand lined up 12 rows of 2 brushes. How many brushes in all? = 24 (C) · There were 47 ribbons. 8 were used up. How many ribbons are left? = 39 (A) · There were 24 carrots. 9 were used up. How many carrots are left? = 15 (Y) · There were 30 carrots. 3 were used up. How many carrots are left? = 27 (R) · Stable hand lined up 9 rows of 4 apples. How many apples in all? = 36 (N) · Stable hand lined up 3 rows of 2 carrots. How many carrots in all? = 6 (H) · There were 37 carrots. 6 were used up. How many carrots are left? = 31 (U)

Clue 4 (Subtraction): "THE SNOOP WORE A RED HELMET"

66 - 27 = 39 (T) · 101 - 22 = 79 (L) · 16 - 4 = 12 (D) · 81 - 33 = 48 (N) · 90 - 34 = 56 (H) · 31 - 11 = 20 (S) · 80 - 8 = 72 (E) · 103 - 20 = 83 (R) · 117 - 29 = 88 (M) · 67 - 13 = 54 (W) · 66 - 19 = 47 (O) · 115 - 40 = 75 (P) · 80 - 3 = 77 (A)

Clue 5 (Missing addends): surviving statement is box 8 → Willa Whinny

5 + ___ = 12 = 7 · 1 + ___ = 3 = 2 · 9 + ___ = 10 = 1 · 1 + ___ = 7 = 6 · 3 + ___ = 12 = 9 · 2 + ___ = 13 = 11 · 3 + ___ = 13 = 10 · 2 + ___ = 14 = 12 · 2 + ___ = 5 = 3 · 5 + ___ = 9 = 4 · 3 + ___ = 8 = 5