The Case of the Stolen Crystal Horn

Grade 5 math · Rounding, Skip counting, Word problems, Bar models, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into Cloudberry Meadow High Stables and swiped the sacred Crystal Horn! Solve the math clues, track down the evidence, and figure out which sneaky suspect took the treasure.

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 Horn Thief is _____

Possible suspects

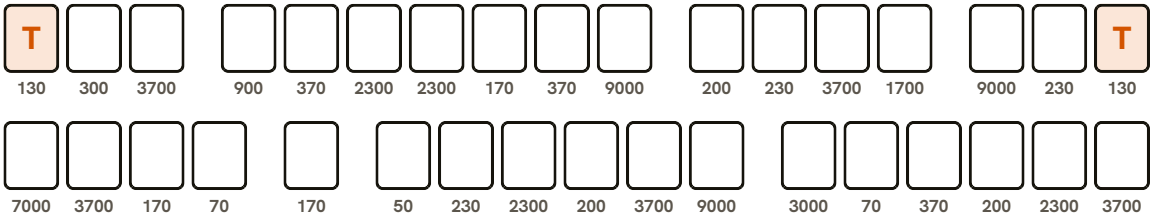
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	MAGIC SPARK	ENCHANTED GEAR	HOOF MARK	MANE COLOR	TREAT DISLIKE
Barnaby Glint	Moon Glow	Star Ribbon	Right Hoof Tap	Pastel Pink	Fizzy Berries
Pippin Trotter	Gem Sparkle	Silver Saddle	Right Hoof Tap	Pastel Pink	Bitter Grass
Sam Sunbeam	Gem Sparkle	Silver Saddle	Right Hoof Tap	Sky Blue	Sour Apples
Bella Buttercup	Rainbow Shield	Star Ribbon	Left Hoof Tap	Pastel Pink	Fizzy Berries
Rosie Meadow	Cloud Hover	Silver Saddle	Left Hoof Tap	Sky Blue	Sour Apples
Felix Flutter	Gem Sparkle	Velvet Blanket	Left Hoof Tap	Pastel Pink	Fizzy Berries
Maya Moonbeam	Moon Glow	Star Ribbon	Right Hoof Tap	Pastel Pink	Sour Apples
Gus Glitter	Moon Glow	Crystal Bell	Right Hoof Tap	Pastel Pink	Sour Apples
Ziggy Zap	Gem Sparkle	Star Ribbon	Right Hoof Tap	Sky Blue	Sour Apples
Daisy Dewdrop	Rainbow Shield	Crystal Bell	Left Hoof Tap	Pastel Pink	Bitter Grass
Hazel Hoof	Rainbow Shield	Crystal Bell	Left Hoof Tap	Sky Blue	Sour Apples
Chloe Cloud	Rainbow Shield	Velvet Blanket	Left Hoof Tap	Pastel Pink	Bitter Grass
Willow Breeze	Starlight Dash	Star Ribbon	Right Hoof Tap	Sky Blue	Sour Apples
Ruby Radiance	Gem Sparkle	Crystal Bell	Left Hoof Tap	Pastel Pink	Bitter Grass
Penny Pasture	Moon Glow	Crystal Bell	Right Hoof Tap	Pastel Pink	Bitter Grass
Toby Twilight	Gem Sparkle	Star Ribbon	Left Hoof Tap	Sky Blue	Bitter Grass
Jasper Jewel	Starlight Dash	Crystal Bell	Left Hoof Tap	Pastel Pink	Bitter Grass
Milo Marshmallow	Rainbow Shield	Golden Bridle	Left Hoof Tap	Pastel Pink	Bitter Grass
Nora Nectar	Starlight Dash	Velvet Blanket	Right Hoof Tap	Sky Blue	Bitter Grass
Sparkle Blossom	Gem Sparkle	Silver Saddle	Left Hoof Tap	Sky Blue	Sour Apples
Leo Luster	Gem Sparkle	Velvet Blanket	Left Hoof Tap	Sky Blue	Fizzy Berries

CLUE 1 Rounding

> The enchanted stable radar rounds all distances to the nearest ten meters.

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



Round 129 to the nearest ten ☐ → T

Round 373 to the nearest ten ☐ → I

Round 221 to the nearest hundred ☐ → D

Round 173 to the nearest ten ☐ → A

Round 70 to the nearest ten ☐ → R

Round 2,265 to the nearest hundred ☐ → L

Round 6,723 to the nearest thousand ☐ → W

Round 1,687 to the nearest hundred ☐ → S

Round 319 to the nearest hundred ☐ → H

Round 226 to the nearest ten ☐ → O

Round 3,721 to the nearest hundred ☐ → E

Round 3,311 to the nearest thousand ☐ → B

Round 949 to the nearest hundred ☐ → V

Round 48 to the nearest ten ☐ → G

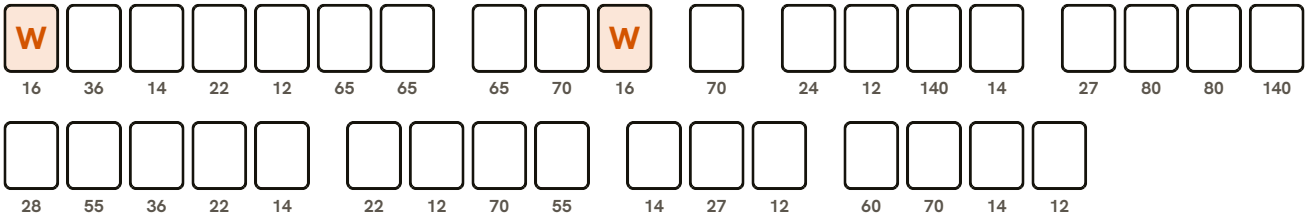
Round 9,227 to the nearest thousand ☐ → N

Scratch space:

CLUE 2 Skip counting

To track the thief through the meadow, the scouts counted hoofprints in sets of five.

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



Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 ☐ → W

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 ☐ → A

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 ☐ → I

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → O

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 ☐ → S

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → T

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 ☐ → E

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 ☐ → N

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 ☐ → H

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 ☐ → R

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ___, 26, 28 ☐ → L

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 ☐ → F

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 ☐ → G

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 → **P**

Scratch space:

CLUE 3 Word problems

The head keeper tallied the missing supplies across the feeding troughs.

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

Someone scared the villain off with

B									S	S
57	88	20	20	103	56	60	56	70		

.

Stable Groom found 15 crystal horseshoe nails yesterday and 42 more today. How many crystal horseshoe nails in all?

Answer: ☐ → B

Stable Groom found 66 starlight oats yesterday and 4 more today. How many starlight oats in all?

Answer: ☐ → A

There were 118 glitter apples. 30 were used up. How many glitter apples are left?

Answer: ☐ → I

Stable Groom lined up 2 rows of 10 cloud sugar cubes. How many cloud sugar cubes in all?

Answer: ☐ → T

There were 87 glitter apples. 31 were used up. How many glitter apples are left?

Answer: ☐ → R

There were 120 sparkle berries. 17 were used up. How many sparkle berries are left?

Answer: ☐ → E

Stable Groom lined up 5 rows of 12 cloud sugar cubes. How many cloud sugar cubes in all?

Answer: ☐ → G

Scratch space:

CLUE 4 Bar model word problems

The glitter logs showed comparative charts of how much magic dust was used.

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

A strand of

P						P		N	K
22	55	94	69	133	126	22	81		

hair turned up at the scene.

Stable Groom shares 44 glitter apples equally among 2 teams. How many glitter apples does each team get?

draw a bar model

Answer: ☐ → P

Stable Groom has 9 times as many starlight oats as a teammate. The teammate has 9 starlight oats. How many starlight oats does Stable Groom have?

draw a bar model

Answer: ☐ → I

Stable Groom used 1/2 of the sparkle berries on the first day. The other 47 sparkle berries were used the next day. How many sparkle berries were there in all?

draw a bar model

Answer: ☐ → S

Stable Groom has 110 cloud sugar cubes, packed 2 to a bag. How many bags can be filled?

draw a bar model

Answer: ☐ → A

There were 159 crystal horseshoe nails in all. 33 crystal horseshoe nails were used. How many crystal horseshoe nails are left?

draw a bar model

Answer: ☐ → L

There were 163 sparkle berries in all. 30 sparkle berries were used. How many sparkle berries are left?

draw a bar model

Answer: ☐ → E

Stable Groom shares 138 sparkle berries equally among 2 teams. How many sparkle berries does each team get?

draw a bar model

Answer: ☐ → T

CLUE 5 Missing addends - the last clue

> The vault door lock needed the exact missing number of glowing stars to open.

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:

4 + ___ = 7 ☐	7 + ___ = 19 ☐	20 + ___ = 22 ☐	21 + ___ = 26 ☐
34 + ___ = 41 ☐	27 + ___ = 31 ☐	36 + ___ = 46 ☐	5 + ___ = 6 ☐
26 + ___ = 34 ☐	32 + ___ = 43 ☐	16 + ___ = 22 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain slipped past using moon glow, then rang a loud crystal bell.
2. The villain cast a rainbow shield, then draped a warm velvet blanket.
3. The villain blinded guards with gem sparkle, then rang a loud crystal bell.
4. The villain zipped away with a starlight dash, then tied a shining star ribbon.
5. The villain slipped past using moon glow, then adjusted a golden bridle.
6. The villain floated up using cloud hover, then rang a loud crystal bell.
7. The villain zipped away with a starlight dash, then adjusted a golden bridle.
8. The villain slipped past using moon glow, then draped a warm velvet blanket.
9. The villain zipped away with a starlight dash, then rang a loud crystal bell.
10. The villain slipped past using moon glow, then tied a shining star ribbon.
11. The villain blinded guards with gem sparkle, then strapped on a silver saddle.
12. The villain cast a rainbow shield, then rang a loud crystal bell.

TEACHER / PARENT

Answer Key

The Case of the Stolen Crystal Horn

Culprit: Jasper Jewel

Starlight Dash · Crystal Bell · Left Hoof Tap · Pastel Pink · Bitter Grass

Trail: Start 21 → Clue 1 20 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT WEAR A GOLDEN BRIDLE"

Round 129 to the nearest ten = 130 (T) · Round 373 to the nearest ten = 370 (I) · Round 221 to the nearest hundred = 200 (D) · Round 173 to the nearest ten = 170 (A) · Round 70 to the nearest ten = 70 (R) · Round 2,265 to the nearest hundred = 2300 (L) · Round 6,723 to the nearest thousand = 7000 (W) · Round 1,687 to the nearest hundred = 1700 (S) · Round 319 to the nearest hundred = 300 (H) · Round 226 to the nearest ten = 230 (O) · Round 3,721 to the nearest hundred = 3700 (E) · Round 3,311 to the nearest thousand = 3000 (B) · Round 949 to the nearest hundred = 900 (V) · Round 48 to the nearest ten = 50 (G) · Round 9,227 to the nearest thousand = 9000 (N)

Clue 2 (Skip counting): "WITNESS SAW A LEFT HOOF PRINT NEAR THE GATE"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 = 16 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 = 70 (A) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (I) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 = 65 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 = 12 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 = 22 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ___, 26, 28 = 24 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 = 140 (F) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 = 60 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (P)

Clue 3 (Word problems): "BITTER GRASS"

Stable Groom found 15 crystal horseshoe nails yesterday and 42 more today. How many crystal horseshoe nails in all? = 57 (B) · Stable Groom found 66 starlight oats yesterday and 4 more today. How many starlight oats in all? = 70 (A) · There were 118 glitter apples. 30 were used up. How many glitter apples are left? = 88 (I) · Stable Groom lined up 2 rows of 10 cloud sugar cubes. How many cloud sugar cubes in all? = 20 (T) · There were 87 glitter apples. 31 were used up. How many glitter apples are left? = 56 (R) · There were 120 sparkle berries. 17 were used up. How many sparkle berries are left? = 103 (E) · Stable Groom lined up 5 rows of 12 cloud sugar cubes. How many cloud sugar cubes in all? = 60 (G)

Clue 4 (Bar model word problems): "PASTEL PINK"

Stable Groom shares 44 glitter apples equally among 2 teams. How many glitter apples does each team get? = 22 (P) · Stable Groom has 9 times as many starlight oats as a teammate. The teammate has 9 starlight oats. How many starlight oats does Stable Groom have? = 81 (I) · Stable Groom used 1/2 of the sparkle berries on the first day. The other 47 sparkle berries were used the next day. How many sparkle berries were there in all? = 94 (S) · Stable Groom has 110 cloud sugar cubes, packed 2 to a bag. How many bags can be filled? = 55 (A) · There were 159 crystal horseshoe nails in all. 33 crystal horseshoe nails were used. How many crystal horseshoe nails are left? = 126 (L) · There were 163 sparkle berries in all. 30 sparkle berries were used. How many sparkle berries are left? = 133 (E) · Stable Groom shares 138 sparkle berries equally among 2 teams. How many sparkle berries does each team get? = 69 (T)

Clue 5 (Missing addends): surviving statement is box 9 → Jasper Jewel

4 + ___ = 7 = 3 · 7 + ___ = 19 = 12 · 20 + ___ = 22 = 2 · 21 + ___ = 26 = 5 · 34 + ___ = 41 = 7 · 27 + ___ = 31 = 4 · 36 + ___ = 46 = 10 · 5 + ___ = 6 = 1 · 26 + ___ = 34 = 8 · 32 + ___ = 43 = 11 · 16 + ___ = 22 = 6