The Case of the Missing Star Crystal

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

Detective: _____ **Date:** _____

Someone snatched the glowing Star Crystal from the Sparkle Tree! Detective Pip needs your help to decode the clues and find the sneaky unicorn thief.

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 Crystal Thief is _____

Possible suspects

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

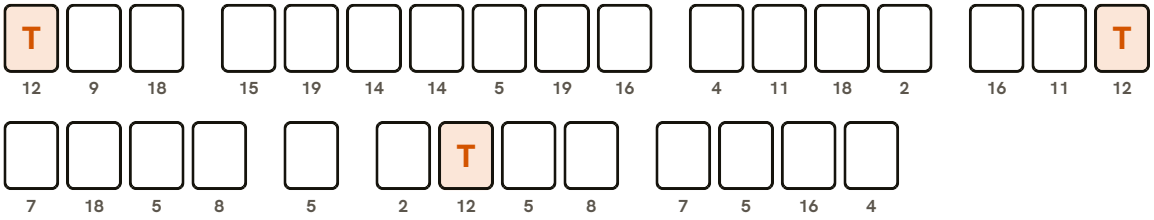
NAME	MAGIC HORN ABILITY	SPECIAL GEAR	HOOF MARK	MANE STYLE	SILLY WEAKNESS
Pip	Glitter Blast	Moon Ribbon	Right Hoof Print	Curly Mane	Scared Of Frogs
Sunny	Rainbow Beams	Crystal Horseshoe	Right Hoof Print	Spiky Mane	Sneeze From Flowers
Willow	Starlight Sparkles	Moon Ribbon	Right Hoof Print	Spiky Mane	Scared Of Frogs
Rosie	Glitter Blast	Silver Bell Collar	Right Hoof Print	Curly Mane	Scared Of Frogs
Sparky	Starlight Sparkles	Silver Bell Collar	Right Hoof Print	Curly Mane	Scared Of Frogs
Barnaby	Flower Sprouting	Silver Bell Collar	Left Hoof Print	Curly Mane	Scared Of Frogs
Misty	Starlight Sparkles	Golden Saddle	Right Hoof Print	Curly Mane	Tickled By Bubbles
Blossom	Cloud Floating	Star Wand	Right Hoof Print	Curly Mane	Scared Of Frogs
Stella	Starlight Sparkles	Crystal Horseshoe	Left Hoof Print	Curly Mane	Tickled By Bubbles
Honey	Rainbow Beams	Silver Bell Collar	Right Hoof Print	Spiky Mane	Tickled By Bubbles
Buttercup	Starlight Sparkles	Moon Ribbon	Right Hoof Print	Curly Mane	Scared Of Frogs
Ziggy	Flower Sprouting	Star Wand	Right Hoof Print	Spiky Mane	Sneeze From Flowers
Poppy	Starlight Sparkles	Golden Saddle	Right Hoof Print	Curly Mane	Sneeze From Flowers
Milo	Flower Sprouting	Golden Saddle	Left Hoof Print	Curly Mane	Scared Of Frogs
Jasper	Glitter Blast	Star Wand	Right Hoof Print	Spiky Mane	Tickled By Bubbles
Peanut	Flower Sprouting	Moon Ribbon	Right Hoof Print	Curly Mane	Sneeze From Flowers
Comet	Cloud Floating	Golden Saddle	Left Hoof Print	Braided Mane	Tickled By Bubbles
Nova	Cloud Floating	Crystal Horseshoe	Right Hoof Print	Braided Mane	Scared Of Frogs
Penny	Flower Sprouting	Moon Ribbon	Left Hoof Print	Spiky Mane	Scared Of Frogs
Gemma	Glitter Blast	Golden Saddle	Right Hoof Print	Braided Mane	Tickled By Bubbles
Twinkle	Rainbow Beams	Crystal Horseshoe	Left Hoof Print	Braided Mane	Sneeze From Flowers

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CLUE 1 Addition

Detective Pip counts the glowing berries dropped on the path to see where the suspect went.

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



4 + 8 = ☐ → T

8 + 10 = ☐ → E

13 + 6 = ☐ → I

1 + 1 = ☐ → S

6 + 2 = ☐ → R

8 + 3 = ☐ → O

3 + 1 = ☐ → D

7 + 2 = ☐ → H

1 + 4 = ☐ → A

10 + 5 = ☐ → V

9 + 7 = ☐ → N

10 + 4 = ☐ → L

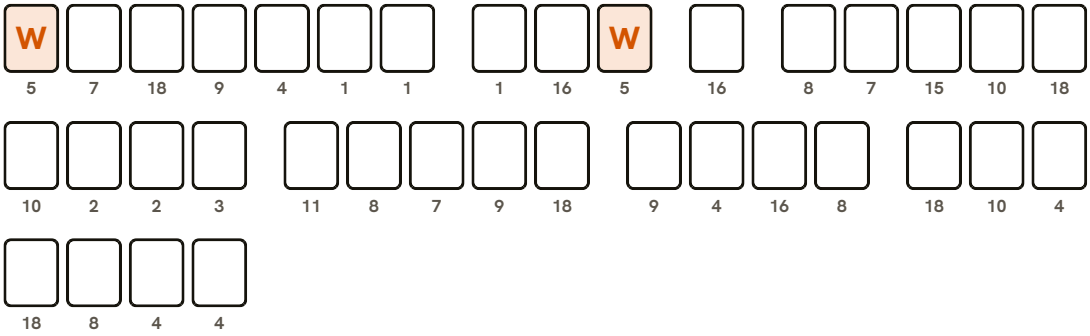
2 + 5 = ☐ → W

Scratch space:

CLUE 2 Subtraction

The Meadow Keeper checks how many magic apples are left in the basket after the thief took some.

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



6 - 1 = ☐ → W

13 - 5 = ☐ → R

16 - 6 = ☐ → H

20 - 9 = ☐ → P

19 - 1 = ☐ → T

10 - 9 = ☐ → S

17 - 8 = ☐ → N

17 - 1 = ☐ → A

10 - 7 = ☐ → F

11 - 9 = ☐ → O

19 - 4 = ☐ → G

12 - 5 = ☐ → I

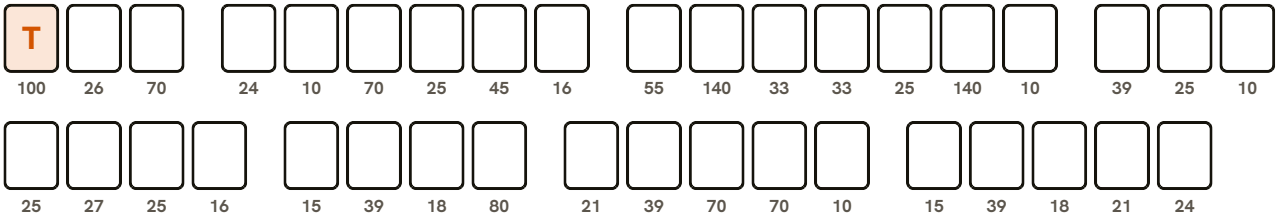
7 - 3 = ☐ → E

Scratch space:

CLUE 3 Skip counting

Detective Pip skip counts the shiny sparkles along the trail by twos to follow the thief.

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



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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 ☐ → A

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, ___, 18, 21 ☐ → F

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, ___, 27, 30 ☐ → S

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 ☐ → R

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 ☐ → **G**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 ☐ → **L**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, ___, 80, 90 ☐ → **E**

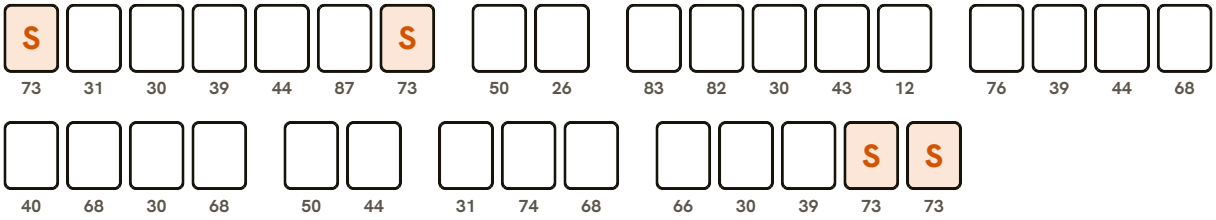
Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 ☐ → **H**

Scratch space:

CLUE 4 Place value

A secret lock box has tens and ones written on the cover to hide a clue.

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



What number has 7 tens and 3 ones? ☐ → S

What number has 8 tens and 3 ones? ☐ → C

What number has 5 tens and 0 ones? ☐ → O

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

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

What number has 3 tens and 0 ones? ☐ → R

What number has 3 tens and 9 ones? ☐ → A

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

What number has 4 tens and 4 ones? ☐ → N

What number has 4 tens and 3 ones? ☐ → L

What number has 1 ten and 2 ones? ☐ → Y

What number has 8 tens and 2 ones? ☐ → U

What number has 2 tens and 6 ones? ☐ → F

What number has 4 tens and 0 ones? ☐ → W

What number has 6 tens and 6 ones? ☐ → G

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

What number has 7 tens and 6 ones? ☐ → M

Scratch space:

CLUE 5 Missing addends - the last clue

Detective Pip needs to find the missing number of gems to open the star gate.

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 + ___ = 7 ☐	8 + ___ = 10 ☐	1 + ___ = 5 ☐	7 + ___ = 14 ☐
7 + ___ = 15 ☐	4 + ___ = 7 ☐	3 + ___ = 9 ☐	2 + ___ = 3 ☐
10 + ___ = 20 ☐	4 + ___ = 13 ☐	3 + ___ = 15 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain shot bright rainbow beams, then adjusted a golden saddle.
2. The villain blasted shiny glitter, then jingled a silver bell collar.
3. The villain blasted shiny glitter, then waved a bright star wand.
4. The villain made starlight sparkles, then jingled a silver bell collar.
5. The villain made starlight sparkles, then tied a silky moon ribbon.
6. The villain sprouted blooming flowers, then adjusted a golden saddle.
7. The villain shot bright rainbow beams, then tied a silky moon ribbon.
8. The villain sprouted blooming flowers, then jingled a silver bell collar.
9. The villain shot bright rainbow beams, then clicked a crystal horseshoe.
10. The villain sprouted blooming flowers, then clicked a crystal horseshoe.
11. The villain blasted shiny glitter, then tied a silky moon ribbon.
12. The villain sprouted blooming flowers, then waved a bright star wand.

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TEACHER / PARENT

Answer Key

The Case of the Missing Star Crystal

Culprit: Pip

Glitter Blast · Moon Ribbon · Right Hoof Print · Curly Mane · Scared Of Frogs

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT WEAR A STAR WAND"

4 + 8 = 12 (T) · 8 + 10 = 18 (E) · 13 + 6 = 19 (I) · 1 + 1 = 2 (S) · 6 + 2 = 8 (R) · 8 + 3 = 11 (O) · 3 + 1 = 4 (D) · 7 + 2 = 9 (H) · 1 + 4 = 5 (A) · 10 + 5 = 15 (V) · 9 + 7 = 16 (N) · 10 + 4 = 14 (L) · 2 + 5 = 7 (W)

Clue 2 (Subtraction): "WITNESS SAW A RIGHT HOOF PRINT NEAR THE TREE"

6 - 1 = 5 (W) · 13 - 5 = 8 (R) · 16 - 6 = 10 (H) · 20 - 9 = 11 (P) · 19 - 1 = 18 (T) · 10 - 9 = 1 (S) · 17 - 8 = 9 (N) · 17 - 1 = 16 (A) · 10 - 7 = 3 (F) · 11 - 9 = 2 (O) · 19 - 4 = 15 (G) · 12 - 5 = 7 (I) · 7 - 3 = 4 (E)

Clue 3 (Skip counting): "THE SNEAKY VILLAIN RAN AWAY FROM GREEN FROGS"

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

Clue 4 (Place value): "STRANDS OF CURLY MANE WERE ON THE GRASS"

What number has 7 tens and 3 ones? = 73 (S) · What number has 8 tens and 3 ones? = 83 (C) · What number has 5 tens and 0 ones? = 50 (O) · What number has 8 tens and 7 ones? = 87 (D) · What number has 7 tens and 4 ones? = 74 (H) · What number has 3 tens and 0 ones? = 30 (R) · What number has 3 tens and 9 ones? = 39 (A) · What number has 6 tens and 8 ones? = 68 (E) · What number has 4 tens and 4 ones? = 44 (N) · What number has 4 tens and 3 ones? = 43 (L) · What number has 1 ten and 2 ones? = 12 (Y) · What number has 8 tens and 2 ones? = 82 (U) · What number has 2 tens and 6 ones? = 26 (F) · What number has 4 tens and 0 ones? = 40 (W) · What number has 6 tens and 6 ones? = 66 (G) · What number has 3 tens and 1 one? = 31 (T) · What number has 7 tens and 6 ones? = 76 (M)

Clue 5 (Missing addends): surviving statement is box 11 → Pip

2 + ___ = 7 = 5 · 8 + ___ = 10 = 2 · 1 + ___ = 5 = 4 · 7 + ___ = 14 = 7 · 7 + ___ = 15 = 8 · 4 + ___ = 7 = 3 · 3 + ___ = 9 = 6 · 2 + ___ = 3 = 1 · 10 + ___ = 20 = 10 · 4 + ___ = 13 = 9 · 3 + ___ = 15 = 12