The Case of the Missing Catnip Pearls

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

Detective: _____ **Date:** _____

Someone snuck into the underwater castle and took the glowing catnip pearls! The purr-maids need your help to trace the clues and find the 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 Pearl Thief is _____

Possible suspects

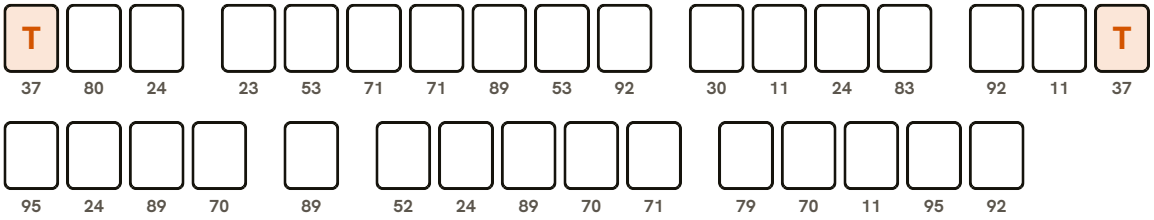
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	PEARL MAGIC	BUBBLE GEAR	FLIPPERS	FUR COLOR	DISTRACTION
Pip	Sea Tail Swish	Pearl Crown	Right Pawed	Tabby Fur	Shiny Lures
Coralie	Starfish Paws	Pearl Crown	Left Pawed	Calico Fur	Catnip Snacks
Finley	Current Purr	Pearl Crown	Right Pawed	Calico Fur	Laser Light
Salty	Bubble Meow	Glow Shell	Left Pawed	Tabby Fur	Shiny Lures
Felix	Sea Tail Swish	Coral Goggles	Right Pawed	Calico Fur	Catnip Snacks
Waffles	Tide Whiskers	Glow Shell	Right Pawed	Silver Fur	Laser Light
Bubbles	Bubble Meow	Pearl Crown	Left Pawed	Calico Fur	Laser Light
Sandy	Current Purr	Coral Goggles	Right Pawed	Silver Fur	Catnip Snacks
Splash	Tide Whiskers	Pearl Crown	Left Pawed	Calico Fur	Shiny Lures
Cleo	Current Purr	Seahorse Saddle	Right Pawed	Silver Fur	Catnip Snacks
Milo	Current Purr	Seahorse Saddle	Right Pawed	Silver Fur	Shiny Lures
Jasper	Starfish Paws	Glow Shell	Right Pawed	Calico Fur	Laser Light
Barnaby	Starfish Paws	Pearl Crown	Right Pawed	Silver Fur	Catnip Snacks
Marina	Bubble Meow	Seahorse Saddle	Right Pawed	Silver Fur	Catnip Snacks
Nemo	Bubble Meow	Glow Shell	Right Pawed	Tabby Fur	Catnip Snacks
Periwinkle	Tide Whiskers	Kelp Ribbon	Right Pawed	Calico Fur	Catnip Snacks
Otter	Bubble Meow	Glow Shell	Right Pawed	Silver Fur	Catnip Snacks
Ziggy	Sea Tail Swish	Glow Shell	Right Pawed	Silver Fur	Shiny Lures
Toby	Tide Whiskers	Coral Goggles	Left Pawed	Tabby Fur	Shiny Lures
Pearl	Starfish Paws	Glow Shell	Left Pawed	Silver Fur	Catnip Snacks
Mako	Tide Whiskers	Coral Goggles	Left Pawed	Silver Fur	Catnip Snacks

CLUE 1 Place value

The Pearl Keeper counted tens and ones on the shell board to decode a secret clue.

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



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

What number has 5 tens and 3 ones? ☐ → I

What number has 7 tens and 0 ones? ☐ → R

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

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

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

What number has 5 tens and 2 ones? ☐ → P

What number has 9 tens and 5 ones? ☐ → W

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

What number has 8 tens and 0 ones? ☐ → H

What number has 2 tens and 3 ones? ☐ → V

What number has 1 ten and 1 one? ☐ → O

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

What number has 7 tens and 9 ones? ☐ → C

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

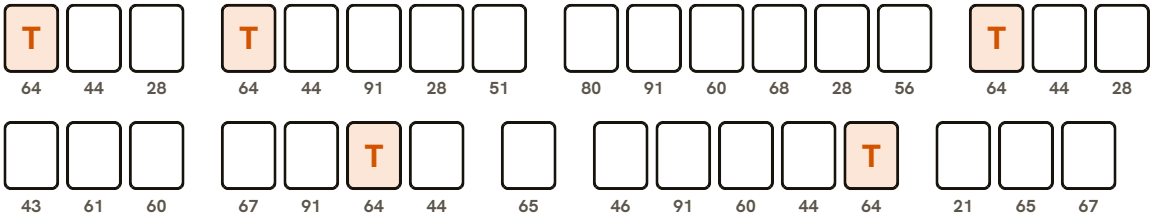
Scratch space:

CLUE 2

Addition

Detective Paws added up the shiny clams counted by the reef guard.

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



35 + 29 = ☐ → T

35 + 16 = ☐ → F

35 + 30 = ☐ → A

27 + 34 = ☐ → O

13 + 15 = ☐ → E

29 + 39 = ☐ → N

14 + 7 = ☐ → P

34 + 46 = ☐ → S

42 + 25 = ☐ → W

40 + 16 = ☐ → D

59 + 32 = ☐ → I

21 + 25 = ☐ → R

27 + 33 = ☐ → G

23 + 21 = ☐ → H

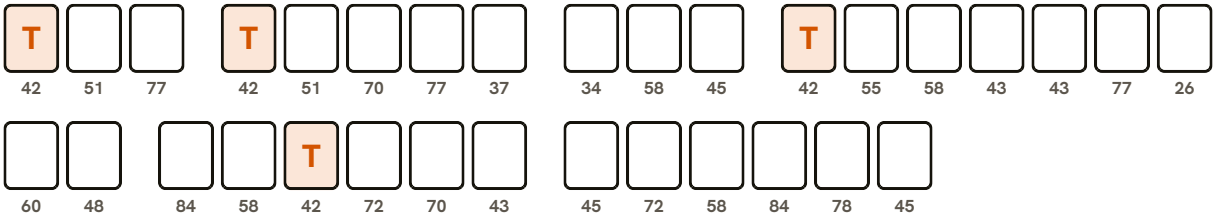
25 + 18 = ☐ → L

Scratch space:

CLUE 3 Subtraction

The guard subtracted the lost shells from the main treasure chest to find what was missing.

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



70 - 28 = ☐ → T

70 - 10 = ☐ → B

112 - 28 = ☐ → C

57 - 14 = ☐ → P

87 - 36 = ☐ → H

105 - 27 = ☐ → K

81 - 9 = ☐ → N

35 - 1 = ☐ → W

62 - 7 = ☐ → R

32 - 6 = ☐ → D

72 - 2 = ☐ → I

49 - 12 = ☐ → F

98 - 21 = ☐ → E

56 - 8 = ☐ → Y

84 - 39 = ☐ → S

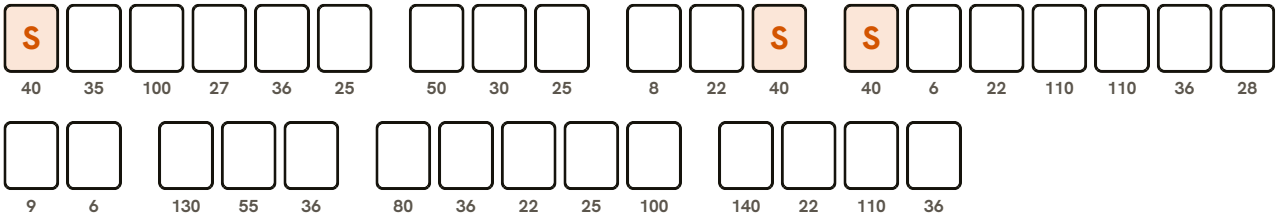
97 - 39 = ☐ → A

Scratch space:

CLUE 4 Skip counting

> The detective skip counted the rows of glowing sea lilies along the reef path.

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



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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 ☐ → **T**

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

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

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 ☐ → **O**

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

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

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

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → **N**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 ☐ → **I**

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

Scratch space:

CLUE 5 Missing addends - the last clue

To open the clamshell vault the team had to find the missing number of pearls needed.

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 + ___ = 8 ☐	3 + ___ = 8 ☐	2 + ___ = 11 ☐	2 + ___ = 10 ☐
9 + ___ = 20 ☐	1 + ___ = 7 ☐	4 + ___ = 7 ☐	5 + ___ = 15 ☐
3 + ___ = 10 ☐	7 + ___ = 8 ☐	1 + ___ = 13 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain shot tide whiskers, then rode a seahorse saddle.
2. The villain purred a big current, then rode a seahorse saddle.
3. The villain waved starfish paws, then put on coral goggles.
4. The villain purred a big current, then put on coral goggles.
5. The villain blew bubble meows, then rode a seahorse saddle.
6. The villain waved starfish paws, then lit a glow shell.
7. The villain swished a sea tail, then wore a pearl crown.
8. The villain waved starfish paws, then tied a kelp ribbon.
9. The villain blew bubble meows, then lit a glow shell.
10. The villain blew bubble meows, then tied a kelp ribbon.
11. The villain shot tide whiskers, then lit a glow shell.
12. The villain shot tide whiskers, then wore a pearl crown.

TEACHER / PARENT

Answer Key

The Case of the Missing Catnip Pearls

Culprit: Cleo

Current Purr · Seahorse Saddle · Right Pawed · Silver Fur · Catnip Snacks

Trail: Start 21 → Clue 1 15 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT WEAR A PEARL CROWN"

What number has 3 tens and 7 ones? = 37 (T) · What number has 5 tens and 3 ones? = 53 (I) · What number has 7 tens and 0 ones? = 70 (R) · What number has 9 tens and 2 ones? = 92 (N) · What number has 3 tens and 0 ones? = 30 (D) · What number has 7 tens and 1 one? = 71 (L) · What number has 5 tens and 2 ones? = 52 (P) · What number has 9 tens and 5 ones? = 95 (W) · What number has 8 tens and 9 ones? = 89 (A) · What number has 8 tens and 0 ones? = 80 (H) · What number has 2 tens and 3 ones? = 23 (V) · What number has 1 ten and 1 one? = 11 (O) · What number has 2 tens and 4 ones? = 24 (E) · What number has 7 tens and 9 ones? = 79 (C) · What number has 8 tens and 3 ones? = 83 (S)

Clue 2 (Addition): "THE THIEF SIGNED THE LOG WITH A RIGHT PAW"

35 + 29 = 64 (T) · 35 + 16 = 51 (F) · 35 + 30 = 65 (A) · 27 + 34 = 61 (O) · 13 + 15 = 28 (E) · 29 + 39 = 68 (N) · 14 + 7 = 21 (P) · 34 + 46 = 80 (S) · 42 + 25 = 67 (W) · 40 + 16 = 56 (D) · 59 + 32 = 91 (I) · 21 + 25 = 46 (R) · 27 + 33 = 60 (G) · 23 + 21 = 44 (H) · 25 + 18 = 43 (L)

Clue 3 (Subtraction): "THE THIEF WAS TRAPPED BY CATNIP SNACKS"

70 - 28 = 42 (T) · 70 - 10 = 60 (B) · 112 - 28 = 84 (C) · 57 - 14 = 43 (P) · 87 - 36 = 51 (H) · 105 - 27 = 78 (K) · 81 - 9 = 72 (N) · 35 - 1 = 34 (W) · 62 - 7 = 55 (R) · 32 - 6 = 26 (D) · 72 - 2 = 70 (I) · 49 - 12 = 37 (F) · 98 - 21 = 77 (E) · 56 - 8 = 48 (Y) · 84 - 39 = 45 (S) · 97 - 39 = 58 (A)

Clue 4 (Skip counting): "SILVER FUR WAS SNAGGED ON THE PEARL CAGE"

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

Clue 5 (Missing addends): surviving statement is box 2 → Cleo

4 + ___ = 8 = 4 · 3 + ___ = 8 = 5 · 2 + ___ = 11 = 9 · 2 + ___ = 10 = 8 · 9 + ___ = 20 = 11 · 1 + ___ = 7 = 6 · 4 + ___ = 7 = 3 · 5 + ___ = 15 = 10 · 3 + ___ = 10 = 7 · 7 + ___ = 8 = 1 · 1 + ___ = 13 = 12