



The Mystery of the Golden Pearl

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

Detective: _____ **Date:** _____

Someone swam into the castle and took the Great Golden Pearl! The Royal Pearl Keeper needs your help. Follow the clues to find the sneaky sea-snatcher!

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 sea-snatcher is _____

Possible suspects

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

NAME	BUBBLE MAGIC	TAIL TRICK	SWIM PAW	FUR COLOR	SILLY FEAR
Oliver	high bubble jump	high tail splash	right paw lead	calico fur	scared of cucumbers
Bella	bubble trap	high tail splash	left paw lead	orange fur	scared of cucumbers
Oscar	bubble blast	shiny tail spark	left paw lead	calico fur	scared of cucumbers
Nala	bubble trap	super tail twist	left paw lead	calico fur	scared of cucumbers
Daisy	high bubble jump	fast tail flip	right paw lead	white fur	scared of laser dots
Toby	high bubble jump	shiny tail spark	right paw lead	orange fur	scared of loud splashes
Luna	bubble trap	high tail splash	left paw lead	calico fur	scared of loud splashes
Cleo	bubble blast	super tail twist	right paw lead	calico fur	scared of laser dots
Fluffy	bubble glow	super tail twist	left paw lead	orange fur	scared of loud splashes
Splash	high bubble jump	super tail twist	left paw lead	white fur	scared of cucumbers
Simba	bubble shield	high tail splash	left paw lead	calico fur	scared of cucumbers
Marina	bubble glow	high tail splash	right paw lead	orange fur	scared of loud splashes
Mittens	bubble shield	shiny tail spark	right paw lead	calico fur	scared of laser dots
Chloe	bubble blast	shiny tail spark	right paw lead	calico fur	scared of loud splashes
Misty	bubble trap	shiny tail spark	right paw lead	white fur	scared of cucumbers
Felix	bubble shield	shiny tail spark	right paw lead	white fur	scared of cucumbers
Coral	high bubble jump	high tail splash	left paw lead	calico fur	scared of cucumbers
Sandy	high bubble jump	fast tail flip	left paw lead	white fur	scared of cucumbers
Bubbles	bubble trap	high tail splash	right paw lead	white fur	scared of loud splashes
Whiskers	high bubble jump	soft tail wave	right paw lead	calico fur	scared of cucumbers
Sassy	high bubble jump	fast tail flip	left paw lead	calico fur	scared of cucumbers

CLUE 1 Place value

Officer Barnaby counts the shiny shells in groups of tens and ones. The secret code on the shell box points us to our first lead.

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

T											T							T
33	18	52	16	17	52	74	49	43	81	74	33	75	98	52	16	17	98	33
									T									
18	74	13	52	16	18	71	17	43	33	74	71	31	16	20	74	45	49	

What number has 3 tens and 3 ones? → **T**

What number has 1 ten and 7 ones? → **N**

What number has 4 tens and 9 ones? → **K**

What number has 7 tens and 1 one? → **I**

What number has 1 ten and 6 ones? → **S**

What number has 4 tens and 3 ones? → **Y**

What number has 1 ten and 8 ones? → **H**

What number has 1 ten and 3 ones? → **V**

What number has 2 tens and 0 ones? → **P**

What number has 3 tens and 1 one? → **L**

What number has 8 tens and 1 one? → **C**

What number has 5 tens and 2 ones? → **E**

What number has 7 tens and 5 ones? → **D**

What number has 9 tens and 8 ones? → **O**

What number has 7 tens and 4 ones? → **A**

What number has 4 tens and 5 ones? → **R**

Scratch space:

CLUE 2 Addition

We find two piles of kelp toys on the ocean floor. We add them together to see how many toys the thief dropped here.

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

W				W								W				
6	15	12	13	6	13	17	15	4	8	3	13	6	19	13	5	15
				W												
8	18	15	12	6	16	10	17	12								

$4 + 2 = \square \rightarrow \boxed{\text{W}}$

$2 + 1 = \square \rightarrow \boxed{\text{P}}$

$2 + 2 = \square \rightarrow \boxed{\text{F}}$

$13 + 5 = \square \rightarrow \boxed{\text{H}}$

$10 + 7 = \square \rightarrow \boxed{\text{L}}$

$10 + 5 = \square \rightarrow \boxed{\text{E}}$

$6 + 10 = \square \rightarrow \boxed{\text{I}}$

$5 + 3 = \square \rightarrow \boxed{\text{T}}$

$7 + 12 = \square \rightarrow \boxed{\text{M}}$

$3 + 7 = \square \rightarrow \boxed{\text{R}}$

$8 + 4 = \square \rightarrow \boxed{\text{S}}$

$8 + 5 = \square \rightarrow \boxed{\text{A}}$

$1 + 4 = \square \rightarrow \boxed{\text{K}}$

Scratch space:

CLUE 3
Subtraction

The thief had a bag of fish treats but some floated away. Let us subtract the lost treats to find out what is left.

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

T					T													
7	19	9	4	15	7	5	15	17	3	5	16	6	15	10	5	9	9	17

4	11	4	11	6	8	9	5

$9 - 2 = \square \rightarrow$ T	$20 - 3 = \square \rightarrow$ N	$11 - 2 = \square \rightarrow$ E	$14 - 9 = \square \rightarrow$ R
$20 - 1 = \square \rightarrow$ H	$4 - 1 = \square \rightarrow$ F	$16 - 1 = \square \rightarrow$ A	$17 - 1 = \square \rightarrow$ O
$20 - 9 = \square \rightarrow$ U	$5 - 1 = \square \rightarrow$ C	$7 - 1 = \square \rightarrow$ M	$14 - 4 = \square \rightarrow$ G
$9 - 1 = \square \rightarrow$ B			

Scratch space:

CLUE 4 Skip counting

We see paw prints on the sandy path. We count them by twos to follow the path and get closer to the thief.

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

W																	
39	24	9	20	14	55	6	80	18	15	15	25	36	22	15	18	36	20
9	14	45	18	55	30	21	24	80	22	55	6						

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, 22 → **I**

Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 → **O**

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

Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 → **L**

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

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **T**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **D**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **Y**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **F**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **R**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 → **U**

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

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

Scratch space:

CLUE 5**Missing addends - the last clue**

The sea vault needs ten pink pearls to open. We only have six pearls. Let us find out how many more we need.

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:

$8 + \underline{\quad} = 15$

$7 + \underline{\quad} = 12$

$6 + \underline{\quad} = 16$

$5 + \underline{\quad} = 11$

$5 + \underline{\quad} = 9$

$8 + \underline{\quad} = 10$

$2 + \underline{\quad} = 3$

$9 + \underline{\quad} = 21$

$6 + \underline{\quad} = 14$

$10 + \underline{\quad} = 13$

$9 + \underline{\quad} = 18$

Step 2 - cross out the sentence with each answer:

1. The villain makes the dark sea light up, then makes a spark of light with their tail.
2. The villain makes the dark sea light up, then splashes warm water with their tail.
3. The villain creates a glowing bubble barrier, then makes a spark of light with their tail.
4. The villain traps the guards in safe bubbles, then makes a spark of light with their tail.
5. The villain creates a glowing bubble barrier, then flips their tail to zoom away.
6. The villain traps the guards in safe bubbles, then waves goodbye with their fluffy tail.
7. The villain floats in a giant air bubble, then splashes warm water with their tail.
8. The villain makes the dark sea light up, then waves goodbye with their fluffy tail.
9. The villain creates a glowing bubble barrier, then twirls their tail like a motor.
10. The villain creates a glowing bubble barrier, then splashes warm water with their tail.
11. The villain traps the guards in safe bubbles, then twirls their tail like a motor.
12. The villain creates a glowing bubble barrier, then waves goodbye with their fluffy tail.

Answer Key

The Mystery of the Golden Pearl

Culprit: Nala

bubble trap · super tail twist · left paw lead · calico fur · scared of cucumbers

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SNEAKY CAT DOES NOT HAVE SHINY TAIL SPARK"

What number has 3 tens and 3 ones? = 33 (T) · What number has 1 ten and 7 ones? = 17 (N) · What number has 4 tens and 9 ones? = 49 (K) · What number has 7 tens and 1 one? = 71 (I) · What number has 1 ten and 6 ones? = 16 (S) · What number has 4 tens and 3 ones? = 43 (Y) · What number has 1 ten and 8 ones? = 18 (H) · What number has 1 ten and 3 ones? = 13 (V) · What number has 2 tens and 0 ones? = 20 (P) · What number has 3 tens and 1 one? = 31 (L) · What number has 8 tens and 1 one? = 81 (C) · What number has 5 tens and 2 ones? = 52 (E) · What number has 7 tens and 5 ones? = 75 (D) · What number has 9 tens and 8 ones? = 98 (O) · What number has 7 tens and 4 ones? = 74 (A) · What number has 4 tens and 5 ones? = 45 (R)

Clue 2 (Addition): "WE SAW A LEFT PAW MAKE THE SWIRLS"

$4 + 2 = 6$ (W) · $2 + 1 = 3$ (P) · $2 + 2 = 4$ (F) · $13 + 5 = 18$ (H) · $10 + 7 = 17$ (L) · $10 + 5 = 15$ (E) · $6 + 10 = 16$ (I) · $5 + 3 = 8$ (T) · $7 + 12 = 19$ (M) · $3 + 7 = 10$ (R) · $8 + 4 = 12$ (S) · $8 + 5 = 13$ (A) · $1 + 4 = 5$ (K)

Clue 3 (Subtraction): "THE CAT RAN FROM A GREEN CUCUMBER"

$9 - 2 = 7$ (T) · $20 - 3 = 17$ (N) · $11 - 2 = 9$ (E) · $14 - 9 = 5$ (R) · $20 - 1 = 19$ (H) · $4 - 1 = 3$ (F) · $16 - 1 = 15$ (A) · $17 - 1 = 16$ (O) · $20 - 9 = 11$ (U) · $5 - 1 = 4$ (C) · $7 - 1 = 6$ (M) · $14 - 4 = 10$ (G) · $9 - 1 = 8$ (B)

Clue 4 (Skip counting): "WE FOUND SILLY CALICO FUR IN THE SAND"

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

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

$8 + \underline{\quad} = 15 = 7$ · $7 + \underline{\quad} = 12 = 5$ · $6 + \underline{\quad} = 16 = 10$ · $5 + \underline{\quad} = 11 = 6$ · $5 + \underline{\quad} = 9 = 4$ · $8 + \underline{\quad} = 10 = 2$ · $2 + \underline{\quad} = 3 = 1$ · $9 + \underline{\quad} = 21 = 12$ · $6 + \underline{\quad} = 14 = 8$ · $10 + \underline{\quad} = 13 = 3$ · $9 + \underline{\quad} = 18 = 9$