

The Case of the Missing Golden Pearl

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

Detective: _____ Date: _____

Oh no! Someone popped the bubble vault and took the Golden Pearl. The Royal Pearl Keeper needs your help. We must search Coral Cove Reef and track down 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 Bubble Bandit is _____

Possible suspects

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

NAME	MAGIC TRICK	SPECIAL TOOL	SWIMMING STYLE	HAIR STYLE	FEAR
Wave	Wave Dash	Glow Tail	Left-finned	Pink curls	Shiny pearls
Coral	Kelp Grip	Crab Claw	Right-finned	Pink curls	Loud singing
Blue	Kelp Grip	Crab Claw	Left-finned	Blue braids	Tickly sand
Aquata	Coral Magic	Shell Sword	Right-finned	Blue braids	Tickly sand
Attina	Song Call	Star Spin	Left-finned	Pink curls	Tickly sand
Alana	Coral Magic	Crab Claw	Left-finned	Pink curls	Loud singing
Coralia	Kelp Grip	Crab Claw	Left-finned	Green locks	Loud singing
Shelly	Song Call	Glow Tail	Left-finned	Pink curls	Loud singing
Marina	Kelp Grip	Pearl Shield	Left-finned	Pink curls	Loud singing
Ocean	Coral Magic	Glow Tail	Right-finned	Blue braids	Tickly sand
Melody	Song Call	Pearl Shield	Left-finned	Pink curls	Tickly sand
Finny	Coral Magic	Shell Sword	Left-finned	Blue braids	Shiny pearls
Andrina	Wave Dash	Glow Tail	Right-finned	Green locks	Tickly sand
Talia	Kelp Grip	Shell Sword	Left-finned	Pink curls	Loud singing
Marissa	Bubble Blast	Pearl Shield	Right-finned	Pink curls	Tickly sand
Glimmer	Kelp Grip	Pearl Shield	Left-finned	Green locks	Tickly sand
Splash	Bubble Blast	Glow Tail	Left-finned	Pink curls	Tickly sand
Ariel	Coral Magic	Glow Tail	Left-finned	Blue braids	Tickly sand
Nerida	Wave Dash	Shell Sword	Left-finned	Pink curls	Loud singing
Adella	Song Call	Pearl Shield	Left-finned	Pink curls	Loud singing
Sirena	Wave Dash	Shell Sword	Right-finned	Blue braids	Loud singing

CLUE 1

Some starfish fell off the reef wall. Subtract the ones that floated away to find the first clue.

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

11 8 4 19 5 3 9 12 11 9 2 4 1 3 2 11 17 1 4

5 1 8 4 7 7 1 10 2 16 9

15 - 4 = → **T**

$$20 - 1 = \boxed{} \rightarrow \boxed{\mathbf{B}}$$

$10 - 6 = \boxed{} \rightarrow \boxed{\text{E}}$

$13 - 8 = \boxed{} \rightarrow \boxed{\text{A}}$

$$8 - 6 = \boxed{} \rightarrow \boxed{0}$$

$14 - 7 = \boxed{} \rightarrow \boxed{\text{L}}$

$12 - 2 = \boxed{} \rightarrow \boxed{\text{W}}$

$20 - 4 = \boxed{} \rightarrow \boxed{\mathbf{R}}$

$14 - 2 = \boxed{} \rightarrow \boxed{1}$

$10 - 2 = \boxed{} \rightarrow \boxed{\text{H}}$

$$3 - 2 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$19 - 2 = \square \rightarrow \boxed{\mathbf{U}}$

$17 - 8 = \square \rightarrow \mathbf{D}$

$12 - 9 = \square \rightarrow \boxed{\text{N}}$

Scratch space:

CLUE 2 Addition

Help the little crab count his shiny sea shells. Add them together to get the next clue.

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

T																
5	10	20	16	8	20	19	4	15	2	20	7	2	19	12	18	

							T		T					T				
16	17	12	2	16	17	12	5	10	5	10	20	13	20	9	5	9	12	8

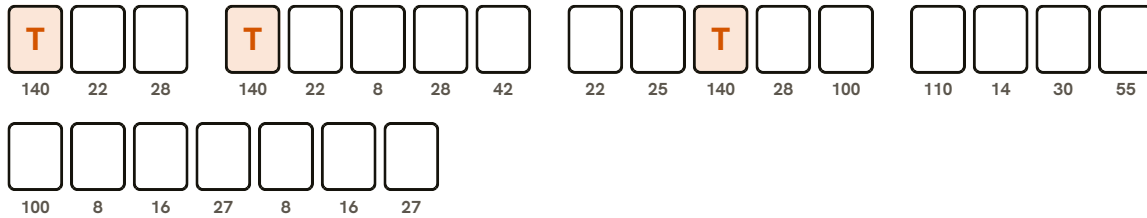
$1 + 4 = \square \rightarrow$ T	$1 + 3 = \square \rightarrow$ K	$4 + 4 = \square \rightarrow$ N	$8 + 8 = \square \rightarrow$ S
$6 + 12 = \square \rightarrow$ D	$13 + 6 = \square \rightarrow$ A	$8 + 4 = \square \rightarrow$ I	
$2 + 5 = \square \rightarrow$ R	$5 + 8 = \square \rightarrow$ L	$3 + 7 = \square \rightarrow$ H	$13 + 7 = \square \rightarrow$ E
$11 + 4 = \square \rightarrow$ Y	$10 + 7 = \square \rightarrow$ W	$7 + 2 = \square \rightarrow$ F	
$1 + 1 = \square \rightarrow$ M			

Scratch space:

CLUE 3 Skip counting

Look at the school of fish. Skip count them by twos to see which way the bandit went.

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, 100, 110, 120, 130, __, 150, 160 → **T**

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

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

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

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **F**

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

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

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

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

Scratch space:

CLUE 4 Place value

The sea snail has piles of pearls. Group them by tens and ones to unlock this secret clue.

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

W																
56	48	90	14	18	42	11	25	72	42	46	59	18	27	60	75	29 35
35	78	48	69	29	18	60	35									

What number has 5 tens and 6 ones? → **W**

What number has 7 tens and 8 ones? → **H**

What number has 1 ten and 4 ones? → **O**

What number has 9 tens and 0 ones? → **F**

What number has 4 tens and 8 ones? → **E**

What number has 2 tens and 7 ones? → **R**

What number has 2 tens and 9 ones? → **A**

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

What number has 1 ten and 1 one? → **D**

What number has 5 tens and 9 ones? → **C**

What number has 7 tens and 2 ones? → **I**

What number has 4 tens and 2 ones? → **N**

What number has 6 tens and 0 ones? → **L**

What number has 4 tens and 6 ones? → **K**

What number has 6 tens and 9 ones? → **V**

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

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

What number has 3 tens and 5 ones? → **T**

Scratch space:

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

The octopus is hiding some of his shiny gems. Find the missing number to get 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:

$8 + \underline{\quad} = 14$

$3 + \underline{\quad} = 13$

$3 + \underline{\quad} = 5$

$3 + \underline{\quad} = 10$

$9 + \underline{\quad} = 10$

$10 + \underline{\quad} = 19$

$3 + \underline{\quad} = 7$

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

$10 + \underline{\quad} = 22$

$9 + \underline{\quad} = 12$

$8 + \underline{\quad} = 13$

Step 2 - cross out the sentence with each answer:

1. The villain reaches with a strong kelp grip, then shines a bright glow tail.
2. The villain calls with a loud song, then shines a bright glow tail.
3. The villain calls with a loud song, then escapes with a quick star spin.
4. The villain uses powerful coral magic, then swings a sharp shell sword.
5. The villain calls with a loud song, then swings a sharp shell sword.
6. The villain calls with a loud song, then blocks with a pearl shield.
7. The villain shoots a huge bubble blast, then snaps a big crab claw.
8. The villain reaches with a strong kelp grip, then escapes with a quick star spin.
9. The villain uses powerful coral magic, then blocks with a pearl shield.
10. The villain uses powerful coral magic, then snaps a big crab claw.
11. The villain reaches with a strong kelp grip, then blocks with a pearl shield.
12. The villain makes a fast wave dash, then shines a bright glow tail.

Answer Key

The Case of the Missing Golden Pearl

Culprit: Marina

Kelp Grip · Pearl Shield · Left-finned · Pink curls · Loud singing

Trail: Start 21 → Clue 1 16 → Clue 2 12 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE BANDIT DOES NOT USE A SHELL SWORD"

$15 - 4 = 11$ (T) · $20 - 1 = 19$ (B) · $10 - 6 = 4$ (E) · $13 - 8 = 5$ (A) · $8 - 6 = 2$ (O) · $14 - 7 = 7$ (L) · $12 - 2 = 10$ (W) · $20 - 4 = 16$ (R) · $14 - 2 = 12$ (I) · $10 - 2 = 8$ (H) · $3 - 2 = 1$ (S) · $19 - 2 = 17$ (U) · $17 - 8 = 9$ (D) · $12 - 9 = 3$ (N)

Clue 2 (Addition): "THE SNEAKY MERMAID SWIMS WITH THE LEFT FIN"

$1 + 4 = 5$ (T) · $1 + 3 = 4$ (K) · $4 + 4 = 8$ (N) · $8 + 8 = 16$ (S) · $6 + 12 = 18$ (D) · $13 + 6 = 19$ (A) · $8 + 4 = 12$ (I) · $2 + 5 = 7$ (R) · $5 + 8 = 13$ (L) · $3 + 7 = 10$ (H) · $13 + 7 = 20$ (E) · $11 + 4 = 15$ (Y) · $10 + 7 = 17$ (W) · $7 + 2 = 9$ (F) · $1 + 1 = 2$ (M)

Clue 3 (Skip counting): "THE THIEF HATES LOUD SINGING"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (G) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (F) · Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (I) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (S)

Clue 4 (Place value): "WE FOUND PINK CURLS AT THE VAULT"

What number has 5 tens and 6 ones? = 56 (W) · What number has 7 tens and 8 ones? = 78 (H) · What number has 1 ten and 4 ones? = 14 (O) · What number has 9 tens and 0 ones? = 90 (F) · What number has 4 tens and 8 ones? = 48 (E) · What number has 2 tens and 7 ones? = 27 (R) · What number has 2 tens and 9 ones? = 29 (A) · What number has 7 tens and 5 ones? = 75 (S) · What number has 1 ten and 1 one? = 11 (D) · What number has 5 tens and 9 ones? = 59 (C) · What number has 7 tens and 2 ones? = 72 (I) · What number has 4 tens and 2 ones? = 42 (N) · What number has 6 tens and 0 ones? = 60 (L) · What number has 4 tens and 6 ones? = 46 (K) · What number has 6 tens and 9 ones? = 69 (V) · What number has 2 tens and 5 ones? = 25 (P) · What number has 1 ten and 8 ones? = 18 (U) · What number has 3 tens and 5 ones? = 35 (T)

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

$8 + \underline{\quad} = 14 = 6$ · $3 + \underline{\quad} = 13 = 10$ · $3 + \underline{\quad} = 5 = 2$ · $3 + \underline{\quad} = 10 = 7$ · $9 + \underline{\quad} = 10 = 1$ · $10 + \underline{\quad} = 19 = 9$ · $3 + \underline{\quad} = 7 = 4$ · $6 + \underline{\quad} = 14 = 8$ · $10 + \underline{\quad} = 22 = 12$ · $9 + \underline{\quad} = 12 = 3$ · $8 + \underline{\quad} = 13 = 5$