# The Case of the Missing Rainbow Crown

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

**Detective:** _____ **Date:** _____

The Rainbow Crown has disappeared from Coral Cove Reef! Detective, solve the clues and stop the Sea Bandit!

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 Bandit is** _____

## Possible suspects

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

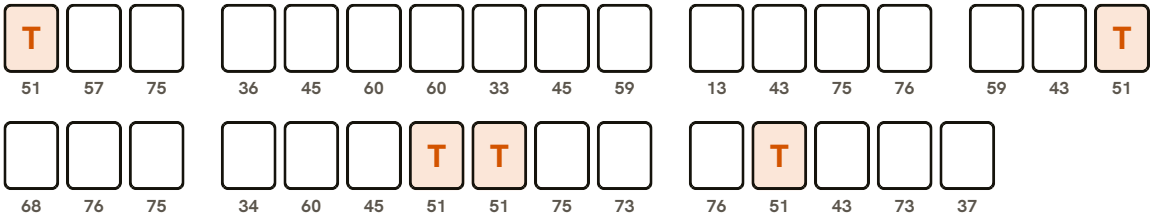
| NAME | MAIN POWER | EXTRA POWER | HANDEDNESS | MANE COLOR | WEAKNESS |
|---|---|---|---|---|---|
| **Blaze** | magic song | rainbow blast | right handed | pink mane | glow kelp |
| **Pearl** | hoof stamp | rainbow blast | left handed | pink mane | moon dust |
| **Splash** | hoof stamp | rainbow blast | right handed | blue mane | glow kelp |
| **Jewel** | tide surge | star spray | left handed | blue mane | glow kelp |
| **Tide** | hoof stamp | star spray | right handed | purple mane | moon dust |
| **Star** | hoof stamp | glitter storm | right handed | pink mane | sea salt |
| **River** | horn beam | star spray | left handed | blue mane | sea salt |
| **Finley** | tide surge | rainbow blast | left handed | pink mane | moon dust |
| **Ariel** | hoof stamp | bubble wave | right handed | purple mane | moon dust |
| **Shelly** | tide surge | glitter storm | left handed | pink mane | moon dust |
| **Sparkle** | magic song | pearl shield | left handed | pink mane | sea salt |
| **Coral** | magic song | glitter storm | right handed | blue mane | sea salt |
| **Skye** | hoof stamp | rainbow blast | left handed | pink mane | sea salt |
| **Kai** | tide surge | bubble wave | left handed | blue mane | glow kelp |
| **Sunny** | magic song | rainbow blast | left handed | pink mane | moon dust |
| **Wave** | tail splash | bubble wave | right handed | blue mane | sea salt |
| **Storm** | tail splash | star spray | left handed | pink mane | moon dust |
| **Dawn** | tail splash | pearl shield | right handed | pink mane | moon dust |
| **Crystal** | hoof stamp | bubble wave | right handed | pink mane | sea salt |
| **Bubbles** | horn beam | star spray | right handed | blue mane | glow kelp |
| **Marina** | hoof stamp | rainbow blast | left handed | purple mane | moon dust |

make your own at mathcrackers.com

## CLUE 1 Place value

Look at the magic shell counter to find the tens and ones.

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




What number has 5 tens and 1 one? ☐ → T

What number has 3 tens and 6 ones? ☐ → V

What number has 4 tens and 5 ones? ☐ → I

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

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

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

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

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

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

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

What number has 5 tens and 7 ones? ☐ → H

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

What number has 7 tens and 5 ones? ☐ → E

What number has 1 ten and 3 ones? ☐ → D

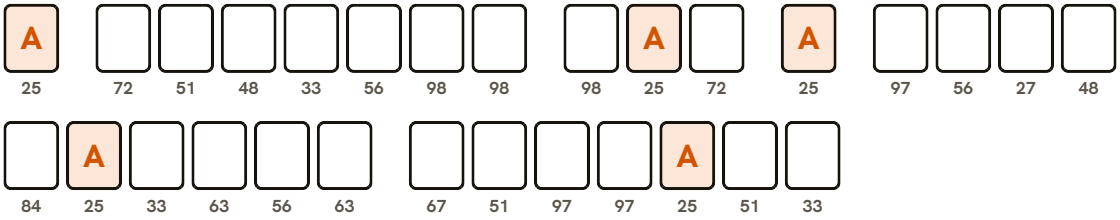
What number has 4 tens and 3 ones? ☐ → O

Scratch space:

## CLUE 2 Addition

Add up all the shiny sea gems collected along the reef.

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



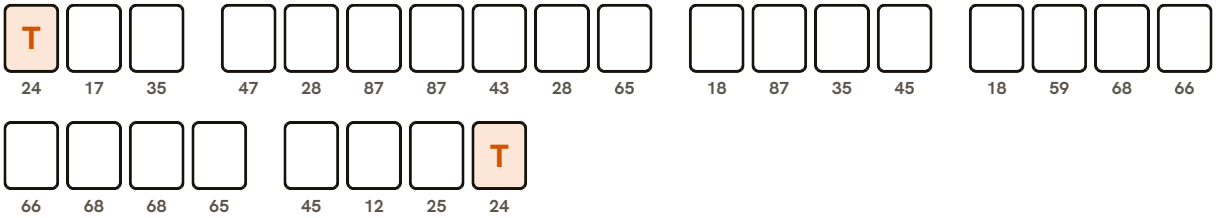

| | | |
|---|---|---|
| 9 + 16 = ☐ → A | 33 + 30 = ☐ → D | 22 + 45 = ☐ → V |
| 40 + 58 = ☐ → S | 40 + 16 = ☐ → E | 11 + 22 = ☐ → N |
| 8 + 19 = ☐ → F | 33 + 39 = ☐ → W | 46 + 38 = ☐ → H |
| 18 + 33 = ☐ → I | 16 + 32 = ☐ → T | 63 + 34 = ☐ → L |

Scratch space:

## CLUE 3 Subtraction

Take away the damaged pearls from the total clam treasure.

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



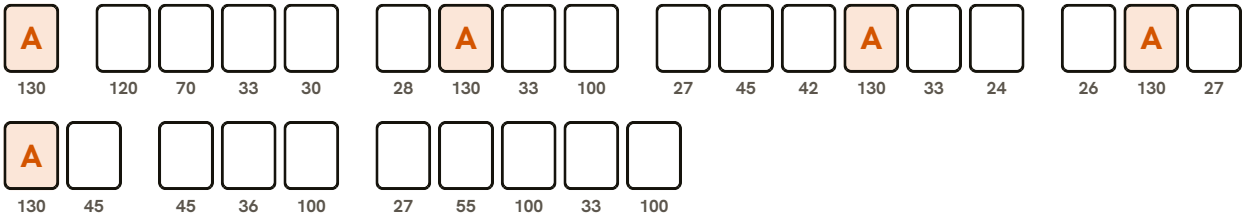

| | | |
|---|---|---|
| 42 - 18 = ☐ → T | 21 - 4 = ☐ → H | 78 - 10 = ☐ → O |
| 103 - 38 = ☐ → N | 107 - 20 = ☐ → L | 27 - 9 = ☐ → F |
| 97 - 38 = ☐ → R | 69 - 22 = ☐ → V | 88 - 22 = ☐ → M |
| 57 - 29 = ☐ → I | 77 - 34 = ☐ → A | 63 - 38 = ☐ → S |
| 74 - 39 = ☐ → E | 82 - 37 = ☐ → D | 42 - 30 = ☐ → U |

Scratch space:

## CLUE 4 Skip counting

Count by twos along the stepping stones in the cove.

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, ___, 140, 150 ☐ → **A**

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

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

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

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

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

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

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

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

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 ☐ → **P**

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

Scratch space:

## CLUE 5 Missing addends - the last clue

Find the missing magic stars to complete the spell grid.

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 + ___ = 10 ☐ | 3 + ___ = 6 ☐ | 2 + ___ = 8 ☐ | 9 + ___ = 14 ☐ |
| 3 + ___ = 14 ☐ | 8 + ___ = 18 ☐ | 4 + ___ = 11 ☐ | 4 + ___ = 8 ☐ |
| 2 + ___ = 3 ☐ | 4 + ___ = 13 ☐ | 2 + ___ = 4 ☐ | |

**Step 2 - cross out the sentence with each answer:**

1. The villain shot a horn beam, then made a bubble wave.
2. The villain gave a hoof stamp, then raised a pearl shield.
3. The villain gave a hoof stamp, then shot a rainbow blast.
4. The villain gave a hoof stamp, then made a bubble wave.
5. The villain sang a magic song, then made a bubble wave.
6. The villain made a tail splash, then launched a star spray.
7. The villain created a tide surge, then made a bubble wave.
8. The villain sang a magic song, then shot a rainbow blast.
9. The villain created a tide surge, then raised a pearl shield.
10. The villain made a tail splash, then caused a glitter storm.
11. The villain gave a hoof stamp, then caused a glitter storm.
12. The villain created a tide surge, then shot a rainbow blast.

TEACHER / PARENT

# Answer Key

The Case of the Missing Rainbow Crown

## Culprit: Finley

tide surge · rainbow blast · left handed · pink mane · moon dust

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

### Clue 1 (Place value): "THE VILLAIN DOES NOT USE GLITTER STORM"

What number has 5 tens and 1 one? = 51 (T) · What number has 3 tens and 6 ones? = 36 (V) · What number has 4 tens and 5 ones? = 45 (I) · What number has 7 tens and 6 ones? = 76 (S) · What number has 3 tens and 4 ones? = 34 (G) · What number has 6 tens and 0 ones? = 60 (L) · What number has 6 tens and 8 ones? = 68 (U) · What number has 5 tens and 9 ones? = 59 (N) · What number has 3 tens and 3 ones? = 33 (A) · What number has 3 tens and 7 ones? = 37 (M) · What number has 5 tens and 7 ones? = 57 (H) · What number has 7 tens and 3 ones? = 73 (R) · What number has 7 tens and 5 ones? = 75 (E) · What number has 1 ten and 3 ones? = 13 (D) · What number has 4 tens and 3 ones? = 43 (O)

### Clue 2 (Addition): "A WITNESS SAW A LEFT HANDED VILLAIN"

9 + 16 = 25 (A) · 33 + 30 = 63 (D) · 22 + 45 = 67 (V) · 40 + 58 = 98 (S) · 40 + 16 = 56 (E) · 11 + 22 = 33 (N) · 8 + 19 = 27 (F) · 33 + 39 = 72 (W) · 46 + 38 = 84 (H) · 18 + 33 = 51 (I) · 16 + 32 = 48 (T) · 63 + 34 = 97 (L)

### Clue 3 (Subtraction): "THE VILLAIN FLED FROM MOON DUST"

42 - 18 = 24 (T) · 21 - 4 = 17 (H) · 78 - 10 = 68 (O) · 103 - 38 = 65 (N) · 107 - 20 = 87 (L) · 27 - 9 = 18 (F) · 97 - 38 = 59 (R) · 69 - 22 = 47 (V) · 88 - 22 = 66 (M) · 57 - 29 = 28 (I) · 77 - 34 = 43 (A) · 63 - 38 = 25 (S) · 74 - 39 = 35 (E) · 82 - 37 = 45 (D) · 42 - 30 = 12 (U)

### Clue 4 (Skip counting): "A PINK MANE STRAND WAS AT THE SCENE"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, ___, 35, 40 = 30 (K) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (C) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (M) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 = 70 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 = 42 (R) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 = 120 (P) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, ___, 27, 30 = 24 (D)

### Clue 5 (Missing addends): surviving statement is box 12 → Finley

2 + ___ = 10 = 8 · 3 + ___ = 6 = 3 · 2 + ___ = 8 = 6 · 9 + ___ = 14 = 5 · 3 + ___ = 14 = 11 · 8 + ___ = 18 = 10 · 4 + ___ = 11 = 7 · 4 + ___ = 8 = 4 · 2 + ___ = 3 = 1 · 4 + ___ = 13 = 9 · 2 + ___ = 4 = 2