



The Mystery of the Rainbow Reef Trophy

Grade 3 math · Place value, Skip counting, Fractions of a number, Rounding · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into the locker room during the big championship game and snatched the Golden Catnip Trophy! Coach Whiskers needs your math skills to find out which player did it before the final whistle sounds.

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 Sneaky Striker is _____

Possible suspects

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

NAME	SOCCER MOVE	ROBLOX GEAR	DOMINANT HAND	TRAIT	WEAKNESS
Coral Chloe	Bubble Dash	Teleport Spin	Left Handed	Silver Fur	Catnip Spray
Starlet Siren	Rainbow Pass	Teleport Spin	Right Handed	Aqua Tail	Glitter Net
Fluffy Felix	Paw Tackle	Mega Bounce	Right Handed	Pink Mane	Catnip Spray
Purrfect Pete	Paw Tackle	Teleport Spin	Left Handed	Pink Mane	Magic Whistle
Sam Kerr	Horn Blast	Speed Boost	Left Handed	Pink Mane	Catnip Spray
Mane Manny	Rainbow Pass	Teleport Spin	Left Handed	Pink Mane	Catnip Spray
Kitten Kit	Paw Tackle	Neon Glow	Left Handed	Aqua Tail	Magic Whistle
Alex Morgan	Bubble Dash	Speed Boost	Left Handed	Silver Fur	Glitter Net
Mia Hamm	Rainbow Pass	Shield Blast	Right Handed	Pink Mane	Magic Whistle
Sparkle Sam	Bubble Dash	Mega Bounce	Left Handed	Pink Mane	Magic Whistle
Paw Patty	Sparkle Kick	Teleport Spin	Right Handed	Pink Mane	Catnip Spray
Mermaid Mia	Horn Blast	Teleport Spin	Right Handed	Aqua Tail	Glitter Net
Lionel Messi	Rainbow Pass	Shield Blast	Left Handed	Pink Mane	Catnip Spray
Marta	Sparkle Kick	Neon Glow	Left Handed	Pink Mane	Magic Whistle
Pele	Sparkle Kick	Teleport Spin	Left Handed	Pink Mane	Catnip Spray
Misty Tail	Paw Tackle	Neon Glow	Right Handed	Silver Fur	Magic Whistle
Finny Frank	Horn Blast	Mega Bounce	Left Handed	Silver Fur	Catnip Spray
Captain Sparkles	Sparkle Kick	Shield Blast	Right Handed	Pink Mane	Magic Whistle
Cristiano Ronaldo	Horn Blast	Speed Boost	Right Handed	Pink Mane	Magic Whistle
Whiskers Will	Paw Tackle	Neon Glow	Left Handed	Pink Mane	Catnip Spray
Unicorn Uma	Rainbow Pass	Speed Boost	Left Handed	Silver Fur	Catnip Spray

CLUE 1 Place value

Coach Whiskers checked the digital scoreboard in Blox World. Looking at the digit values gave a clue about the culprit.

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

T									T										
8000	1000	40	600	300	40	80	6000	900	600	8000	70	7000	6000	40	70	3000	50	40	600
		T																	
300	50	8000	5000	600	40	300	40	50	300	9000	60	50	100						

What is the value of the 8 in 8,179? → **T**

What is the value of the 1 in 3,195? → **W**

What is the value of the 5 in 5,303? → **U**

What is the value of the 8 in 986? → **A**

What is the value of the 1 in 41,946? → **H**

What is the value of the 3 in 83,008? → **D**

What is the value of the 9 in 9,078? → **G**

What is the value of the 5 in 7,259? → **O**

What is the value of the 7 in 17,286? → **I**

What is the value of the 3 in 370? → **N**

What is the value of the 6 in 3,761? → **L**

What is the value of the 6 in 5,679? → **S**

What is the value of the 9 in 914? → **Y**

What is the value of the 4 in 746? → **E**

What is the value of the 7 in 378? → **R**

What is the value of the 6 in 6,433? → **K**

Scratch space:

CLUE 2 Skip counting

The detective counted footprints in equal skips along the unicorn pitch to track where the thief ran.

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

W									W					
40	22	39	45	90	65	65	65	36	40	36	130	90	70	39
24	36	45	14	90	14	12	22	80	12	36	39	27	110	36
														130

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **W**

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **E**

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

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

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

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **K**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **S**

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

Scratch space:

CLUE 3
Fractions of a number

Mermaid Mia divided the supply of magic potions into equal groups to see how many were taken.

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

T															
40	19	8	28	8	6	8	37	28	8	25	4	30	8	28	

		T									T			T		
36	13	40	37	24	29	30	29	25	13	26	40	12	30	40	12	29

T			
40	19	8	11

$2/10 \text{ of } 200 = \square \rightarrow \text{ T }$

$3/8 \text{ of } 80 = \square \rightarrow \text{ S }$

$5/10 \text{ of } 50 = \square \rightarrow \text{ R }$

$1/3 \text{ of } 108 = \square \rightarrow \text{ C }$

$2/6 \text{ of } 111 = \square \rightarrow \text{ N }$

$1/2 \text{ of } 38 = \square \rightarrow \text{ H }$

$2/4 \text{ of } 8 = \square \rightarrow \text{ U }$

$4/8 \text{ of } 58 = \square \rightarrow \text{ P }$

$2/8 \text{ of } 24 = \square \rightarrow \text{ F }$

$4/6 \text{ of } 18 = \square \rightarrow \text{ O }$

$1/6 \text{ of } 168 = \square \rightarrow \text{ D }$

$1/6 \text{ of } 66 = \square \rightarrow \text{ M }$

$1/4 \text{ of } 32 = \square \rightarrow \text{ E }$

$2/6 \text{ of } 39 = \square \rightarrow \text{ A }$

$4/6 \text{ of } 39 = \square \rightarrow \text{ Y }$

$4/10 \text{ of } 60 = \square \rightarrow \text{ I }$

Scratch space:

CLUE 4 Rounding

The stadium radar scanner rounded the player speed to the nearest ten to pinpoint the suspect.

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

T					T			T									
900	60	6000	8000	6000	900	6000	20	900	4000	50	6000	9000	700	3000	2000	8000	

									T							
70	4000	2000	90	400	80	2000	6000	7000	900	800	80	2000	8000	7000		

Round 906 to the nearest hundred → **T**

Round 7,519 to the nearest thousand → **D**

Round 4,029 to the nearest thousand → **I**

Round 3,213 to the nearest thousand → **U**

Round 6,146 to the nearest thousand → **E**

Round 61 to the nearest ten → **H**

Round 748 to the nearest hundred → **O**

Round 2,497 to the nearest thousand → **N**

Round 83 to the nearest ten → **A**

Round 49 to the nearest ten → **V**

Round 23 to the nearest ten → **C**

Round 795 to the nearest hundred → **R**

Round 357 to the nearest hundred → **M**

Round 90 to the nearest ten → **K**

Round 6,614 to the nearest thousand → **S**

Round 9,161 to the nearest thousand → **F**

Round 68 to the nearest ten → **P**

Scratch space:

CLUE 5**Fractions of a number - the last clue**

Captain Sparkles looked at a fraction of the glittery treats left behind on the field.

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:

$2/8 \text{ of } 8 = \boxed{}$

$1/5 \text{ of } 35 = \boxed{}$

$4/8 \text{ of } 8 = \boxed{}$

$3/6 \text{ of } 6 = \boxed{}$

$2/10 \text{ of } 25 = \boxed{}$

$1/2 \text{ of } 2 = \boxed{}$

$1/6 \text{ of } 60 = \boxed{}$

$1/4 \text{ of } 24 = \boxed{}$

$1/5 \text{ of } 40 = \boxed{}$

$2/10 \text{ of } 55 = \boxed{}$

$2/8 \text{ of } 36 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain blew a horn blast, then cast shield blast.
2. The villain made a rainbow pass, then used teleport spin.
3. The villain shot a sparkle kick, then activated neon glow.
4. The villain shot a sparkle kick, then used teleport spin.
5. The villain used bubble dash, then activated neon glow.
6. The villain tried a paw tackle, then cast shield blast.
7. The villain made a rainbow pass, then cast shield blast.
8. The villain blew a horn blast, then used teleport spin.
9. The villain shot a sparkle kick, then cast shield blast.
10. The villain shot a sparkle kick, then turned on speed boost.
11. The villain used bubble dash, then cast shield blast.
12. The villain blew a horn blast, then turned on speed boost.

Answer Key

The Mystery of the Rainbow Reef Trophy

Culprit: Sam Kerr

Horn Blast · Speed Boost · Left Handed · Pink Mane · Catnip Spray

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SNEAKY STRIKER DOES NOT USE NEON GLOW"

What is the value of the 8 in 8,179? = 8000 (T) · What is the value of the 1 in 3,195? = 100 (W) · What is the value of the 5 in 5,303? = 5000 (U) · What is the value of the 8 in 986? = 80 (A) · What is the value of the 1 in 41,946? = 1000 (H) · What is the value of the 3 in 83,008? = 3000 (D) · What is the value of the 9 in 9,078? = 9000 (G) · What is the value of the 5 in 7,259? = 50 (O) · What is the value of the 7 in 17,286? = 7000 (I) · What is the value of the 3 in 370? = 300 (N) · What is the value of the 6 in 3,761? = 60 (L) · What is the value of the 6 in 5,679? = 600 (S) · What is the value of the 9 in 914? = 900 (Y) · What is the value of the 4 in 746? = 40 (E) · What is the value of the 7 in 378? = 70 (R) · What is the value of the 6 in 6,433? = 6000 (K)

Clue 2 (Skip counting): "WITNESS SAW A LEFT HANDED KICK AT GOAL"

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

Clue 3 (Fractions of a number): "THE DEFENDER USED CATNIP SPRAY TO STOP THEM"

$\frac{2}{10}$ of 200 = 40 (T) · $\frac{3}{8}$ of 80 = 30 (S) · $\frac{5}{10}$ of 50 = 25 (R) · $\frac{1}{3}$ of 108 = 36 (C) · $\frac{2}{6}$ of 111 = 37 (N) · $\frac{1}{2}$ of 38 = 19 (H) · $\frac{2}{4}$ of 8 = 4 (U) · $\frac{4}{8}$ of 58 = 29 (P) · $\frac{2}{8}$ of 24 = 6 (F) · $\frac{4}{6}$ of 18 = 12 (O) · $\frac{1}{6}$ of 168 = 28 (D) · $\frac{1}{6}$ of 66 = 11 (M) · $\frac{1}{4}$ of 32 = 8 (E) · $\frac{2}{6}$ of 39 = 13 (A) · $\frac{4}{6}$ of 39 = 26 (Y) · $\frac{4}{10}$ of 60 = 24 (I)

Clue 4 (Rounding): "THE DETECTIVE FOUND PINK MANE STRANDS"

Round 906 to the nearest hundred = 900 (T) · Round 7,519 to the nearest thousand = 8000 (D) · Round 4,029 to the nearest thousand = 4000 (I) · Round 3,213 to the nearest thousand = 3000 (U) · Round 6,146 to the nearest thousand = 6000 (E) · Round 61 to the nearest ten = 60 (H) · Round 748 to the nearest hundred = 700 (O) · Round 2,497 to the nearest thousand = 2000 (N) · Round 83 to the nearest ten = 80 (A) · Round 49 to the nearest ten = 50 (V) · Round 23 to the nearest ten = 20 (C) · Round 795 to the nearest hundred = 800 (R) · Round 357 to the nearest hundred = 400 (M) · Round 90 to the nearest ten = 90 (K) · Round 6,614 to the nearest thousand = 7000 (S) · Round 9,161 to the nearest thousand = 9000 (F) · Round 68 to the nearest ten = 70 (P)

Clue 5 (Fractions of a number): surviving statement is box 12 → Sam Kerr

$\frac{2}{8}$ of 8 = 2 · $\frac{1}{5}$ of 35 = 7 · $\frac{4}{8}$ of 8 = 4 · $\frac{3}{6}$ of 6 = 3 · $\frac{2}{10}$ of 25 = 5 · $\frac{1}{2}$ of 2 = 1 · $\frac{1}{6}$ of 60 = 10 · $\frac{1}{4}$ of 24 = 6 · $\frac{1}{5}$ of 40 = 8 · $\frac{2}{10}$ of 55 = 11 · $\frac{2}{8}$ of 36 = 9