



The Great Pixel Paw Cup Mystery

Grade 3 math · Place value, Skip counting, Fractions of a number, Word problems, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

The golden championship trophy vanished right before the final match at Pixel Paw Cove! Someone disrupted the stadium lights and snatched the prize. Solve the math puzzles to collect clues and unmask the culprit!

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 Scallywag is _____

Possible suspects

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

NAME	MAIN MOVE	SPECIAL SKILL	VISOR TYPE	MANE STYLE	SECRET TRAP
Admiral Tailspin	Cat Tail Spin	Double Jump Kick	Wears Golden Visor	Purple Pirate Dreadlocks	Slippery Sea Foam
Captain Sparkles	Unicorn Turbo Sprint	Sparkle Horn Beam	Wears Silver Visor	Purple Pirate Dreadlocks	Squeaky Cat Toy
Robo Bubbles	Pirate Cannon Blast	Double Jump Kick	Wears Silver Visor	Pink Pixel Mane	Rainbow Sugar Cube
Splashy Sam	Pirate Cannon Blast	Anchor Slam	Wears Golden Visor	Pink Pixel Mane	Slippery Sea Foam
Robo Rex	Unicorn Turbo Sprint	Double Jump Kick	Wears Golden Visor	Purple Pirate Dreadlocks	Rainbow Sugar Cube
Captain Calico	Robo Laser Strike	Anchor Slam	Wears Silver Visor	Purple Pirate Dreadlocks	Slippery Sea Foam
Captain Barnaby	Blocky Shield Wall	Neon Splash Boost	Wears Golden Visor	Purple Pirate Dreadlocks	Slippery Sea Foam
Prism Patty	Unicorn Turbo Sprint	Anchor Slam	Wears Golden Visor	Purple Pirate Dreadlocks	Slippery Sea Foam
Neon Nora	Robo Laser Strike	Double Jump Kick	Wears Golden Visor	Purple Pirate Dreadlocks	Squeaky Cat Toy
Pixel Polly	Unicorn Turbo Sprint	Sparkle Horn Beam	Wears Silver Visor	Blue Robo Fins	Rainbow Sugar Cube
Meowser Max	Blocky Shield Wall	Double Jump Kick	Wears Silver Visor	Purple Pirate Dreadlocks	Slippery Sea Foam
Coral Captain	Pirate Cannon Blast	Double Jump Kick	Wears Golden Visor	Pink Pixel Mane	Rainbow Sugar Cube
Turbo Tabby	Robo Laser Strike	Anchor Slam	Wears Golden Visor	Blue Robo Fins	Rainbow Sugar Cube
Glitchy Grace	Unicorn Turbo Sprint	Sparkle Horn Beam	Wears Golden Visor	Purple Pirate Dreadlocks	Slippery Sea Foam
Robo Whiskers	Unicorn Turbo Sprint	Glitch Teleport	Wears Golden Visor	Purple Pirate Dreadlocks	Slippery Sea Foam
Unicorn Uma	Robo Laser Strike	Glitch Teleport	Wears Golden Visor	Purple Pirate Dreadlocks	Rainbow Sugar Cube
Mermaid Marina	Blocky Shield Wall	Neon Splash Boost	Wears Golden Visor	Pink Pixel Mane	Slippery Sea Foam
Blocky Bob	Unicorn Turbo Sprint	Neon Splash Boost	Wears Golden Visor	Purple Pirate Dreadlocks	Squeaky Cat Toy
Cyber Cleo	Cat Tail Spin	Glitch Teleport	Wears Silver Visor	Pink Pixel Mane	Slippery Sea Foam
Pixel Pete	Cat Tail Spin	Neon Splash Boost	Wears Silver Visor	Pink Pixel Mane	Slippery Sea Foam
Princess Prism	Cat Tail Spin	Anchor Slam	Wears Silver Visor	Pink Pixel Mane	Rainbow Sugar Cube

CLUE 1 Place value

We checked the place value readout on the stadium scoreboard to decode the first clue about the culprit.

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

T																			
50	70	60	3000	100	60	30	8000	20	400	10	2000	900	800	4000	50	70	30	3000	
100	80	3000	900	30	800	8000	2000	60	70	80	800	100	40	60	30	300			

What is the value of the 5 in 7,150? → **T**

What is the value of the 6 in 9,365? → **E**

What is the value of the 1 in 194? → **N**

What is the value of the 3 in 7,430? → **A**

What is the value of the 2 in 929? → **Y**

What is the value of the 4 in 4,056? → **I**

What is the value of the 1 in 318? → **U**

What is the value of the 8 in 480? → **O**

What is the value of the 9 in 937? → **P**

What is the value of the 2 in 2,684? → **L**

What is the value of the 3 in 83,609? → **S**

What is the value of the 3 in 397? → **M**

What is the value of the 7 in 3,174? → **H**

What is the value of the 8 in 869? → **R**

What is the value of the 4 in 5,346? → **B**

What is the value of the 4 in 426? → **C**

What is the value of the 8 in 98,230? → **K**

Scratch space:

CLUE 2 Skip counting

We counted the glowing power cells along the pirate ship deck by skip counting in groups to unlock the second clue.

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

A									A		A						
25	55	12	15	50	24	90	90	90	25	55	25	14	36	70	6	24	50
30	12	90	36	60	90	21	12	50	12	50	14						

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

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

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

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

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

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

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

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

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

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

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **R**

Scratch space:

Fractions of a number

We calculated a fraction of the total energetic sea crystals stored in the locker room to reveal the third clue.

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

Two rows of a memory game. Each row has 16 cards. The top row has 8 cards with numbers and 8 cards with the letter 'S'. The bottom row has 8 cards with numbers and 8 cards with the letter 'S'. The numbers are: 12, 2, 21, 39, 39, 30, 38, 17, 12, 30, 15, 40, 14, 15, 11, 12, 28, 14, 39, 39, 30, 23, 28, 19, 30, 11, 21, 4, 28, 38, 15, 25, 31, 12.

$2/4$ of 24 = $\rightarrow$ **S**

$4/5$ of $50 = \boxed{} \rightarrow \boxed{\text{F}}$

$5/10$ of $4 = \boxed{} \rightarrow \boxed{\text{L}}$

$7/8$ of 24 = $\rightarrow$

5/10 of 76 = → **R**

$\frac{1}{2}$ of 62 = $\rightarrow$ **K**

$3/6$ of $50 = \boxed{} \rightarrow \boxed{\text{C}}$

$\frac{1}{4}$ of 44 = $\rightarrow$ **M**

$\frac{1}{4}$ of 120 = $\rightarrow$ **E**

5/6 of 18 = → **A**

2/10 of 85 = → **Y**

$\frac{2}{3}$ of 42 = $\rightarrow$ **T**

$$\frac{1}{4} \text{ of } 76 = \boxed{} \rightarrow \boxed{\text{H}}$$

4/6 of 6 = → **N**

$\frac{1}{4}$ of 56 = $\rightarrow$

5/10 of 78 = → **P**

$\frac{1}{6}$ of 138 = $\rightarrow$ **D**

Scratch space:

CLUE 4

Word problems

We solved a quick math word problem about the soccer balls in the inventory chest to find the fourth clue.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A strand of

P			P			P				T		D				D		O	C	K	S
54	76	49	54	23	28	54	32	49	34	28		49	28	34		23					

hair turned up at the scene.

Stadium referee lined up 6 rows of 9 pixel soccer ball. How many pixel soccer ball in all?

Answer: → **P**

Stadium referee lined up 4 rows of 8 glitch potion. How many glitch potion in all?

Answer: → **I**

There were 42 sparkle crystal. 19 were used up. How many sparkle crystal are left?

Answer: → **L**

Stadium referee found 19 pixel soccer ball yesterday and 15 more today. How many pixel soccer ball in all?

Answer: → **A**

There were 100 robotic squeak toy. 24 were used up. How many robotic squeak toy are left?

Answer: → **U**

There were 67 glitch potion. 18 were used up. How many glitch potion are left?

Answer: → **R**

Stadium referee found 16 pirate coin yesterday and 12 more today. How many pirate coin in all?

Answer: → **E**

Scratch space:

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

We filled in the missing energy numbers on the arena control panel to unlock the final 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:

$10 + \underline{\quad} = 20$

$7 + \underline{\quad} = 10$

$9 + \underline{\quad} = 13$

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

$5 + \underline{\quad} = 16$

$7 + \underline{\quad} = 13$

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

$5 + \underline{\quad} = 14$

$4 + \underline{\quad} = 12$

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

$3 + \underline{\quad} = 15$

Step 2 - cross out the sentence with each answer:

1. The villain dashed with turbo sprint, then slammed a heavy anchor.
2. The villain dashed with turbo sprint, then splashed neon energy.
3. The villain pounced with tail spin, then performed a double jump.
4. The villain raised a blocky shield, then splashed neon energy.
5. The villain blasted a robo laser, then slammed a heavy anchor.
6. The villain blasted a robo laser, then performed a double jump.
7. The villain fired a pirate cannon, then slammed a heavy anchor.
8. The villain fired a pirate cannon, then shot a horn beam.
9. The villain raised a blocky shield, then shot a horn beam.
10. The villain dashed with turbo sprint, then glitched across the court.
11. The villain blasted a robo laser, then shot a horn beam.
12. The villain raised a blocky shield, then glitched across the court.

Answer Key

The Great Pixel Paw Cup Mystery

Culprit: Prism Patty

Unicorn Turbo Sprint · Anchor Slam · Wears Golden Visor · Purple Pirate Dreadlocks · Slippery Sea Foam

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SNEAKY CULPRIT HAS NO SPARKLE HORN BEAM"

What is the value of the 5 in 7,150? = 50 (T) · What is the value of the 6 in 9,365? = 60 (E) · What is the value of the 1 in 194? = 100 (N) · What is the value of the 3 in 7,430? = 30 (A) · What is the value of the 2 in 929? = 20 (Y) · What is the value of the 4 in 4,056? = 4000 (I) · What is the value of the 1 in 318? = 10 (U) · What is the value of the 8 in 480? = 80 (O) · What is the value of the 9 in 937? = 900 (P) · What is the value of the 2 in 2,684? = 2000 (L) · What is the value of the 3 in 83,609? = 3000 (S) · What is the value of the 3 in 397? = 300 (M) · What is the value of the 7 in 3,174? = 70 (H) · What is the value of the 8 in 869? = 800 (R) · What is the value of the 4 in 5,346? = 40 (B) · What is the value of the 4 in 426? = 400 (C) · What is the value of the 8 in 98,230? = 8000 (K)

Clue 2 (Skip counting): "A WITNESS SAW A GOLDEN VISOR SHINING"

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

Clue 3 (Fractions of a number): "SLIPPERY SEA FOAM STOPPED THEM IN TRACKS"

$\frac{2}{4}$ of 24 = 12 (S) · $\frac{4}{5}$ of 50 = 40 (F) · $\frac{5}{10}$ of 4 = 2 (L) · $\frac{7}{8}$ of 24 = 21 (I) · $\frac{5}{10}$ of 76 = 38 (R) · $\frac{1}{2}$ of 62 = 31 (K) · $\frac{3}{6}$ of 50 = 25 (C) · $\frac{1}{4}$ of 44 = 11 (M) · $\frac{1}{4}$ of 120 = 30 (E) · $\frac{5}{6}$ of 18 = 15 (A) · $\frac{2}{10}$ of 85 = 17 (Y) · $\frac{2}{3}$ of 42 = 28 (T) · $\frac{1}{4}$ of 76 = 19 (H) · $\frac{4}{6}$ of 6 = 4 (N) · $\frac{1}{4}$ of 56 = 14 (O) · $\frac{5}{10}$ of 78 = 39 (P) · $\frac{1}{6}$ of 138 = 23 (D)

Clue 4 (Word problems): "PURPLE PIRATE DREADLOCKS"

Stadium referee lined up 6 rows of 9 pixel soccer ball. How many pixel soccer ball in all? = 54 (P) · Stadium referee lined up 4 rows of 8 glitch potion. How many glitch potion in all? = 32 (I) · There were 42 sparkle crystal. 19 were used up. How many sparkle crystal are left? = 23 (L) · Stadium referee found 19 pixel soccer ball yesterday and 15 more today. How many pixel soccer ball in all? = 34 (A) · There were 100 robotic squeak toy. 24 were used up. How many robotic squeak toy are left? = 76 (U) · There were 67 glitch potion. 18 were used up. How many glitch potion are left? = 49 (R) · Stadium referee found 16 pirate coin yesterday and 12 more today. How many pirate coin in all? = 28 (E)

Clue 5 (Missing addends): surviving statement is box 1 → Prism Patty

$10 + \underline{\quad} = 20 = 10$ · $7 + \underline{\quad} = 10 = 3$ · $9 + \underline{\quad} = 13 = 4$ · $8 + \underline{\quad} = 10 = 2$ · $5 + \underline{\quad} = 16 = 11$ · $7 + \underline{\quad} = 13 = 6$ · $3 + \underline{\quad} = 10 = 7$ · $5 + \underline{\quad} = 14 = 9$ · $4 + \underline{\quad} = 12 = 8$ · $8 + \underline{\quad} = 13 = 5$ · $3 + \underline{\quad} = 15 = 12$