



The Cosmic Cup Caper

Grade 4 math · Skip counting, Rounding, Addition, Subtraction, Division · Reading level grades 3-4

Detective: _____ Date: _____

The golden Diamond Soccer Ball is missing! Captain Mew's championship trophy was swiped right before the big game. A messy trail of pixel blocks and dinosaur scales leads out of the arena. Detective, we need your math skills to scan the deck, read the scanners, and stop 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 space thief is _____

Possible suspects

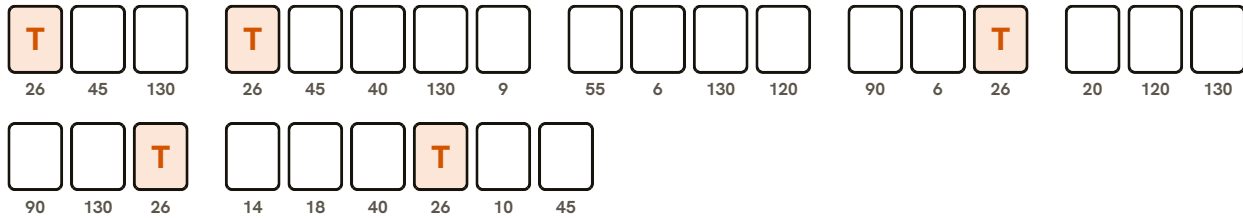
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SPECIAL SKILL	ESCAPE GEAR	HANDEDNESS	HEAD FEATURE	SECRET WEAKNESS
Manning Metal	Dino Dash	Rocket Boots	Left-handed	Spiky Green Scales	Magnet Traps
Pegasus Patrick	Pixel Shield	Rocket Boots	Right-handed	Metal Antenna	Water Splashes
Sparky Horn	Dino Dash	Net Glitch	Left-handed	Metal Antenna	Squeaky Toys
Messi Mew	Dino Dash	Pegasus Wings	Left-handed	Spiky Green Scales	Water Splashes
Cleo Cat	Laser Purr	Tail Whip	Left-handed	Rainbow Mane	Water Splashes
Pixel Pete	Pixel Shield	Tail Whip	Right-handed	Rainbow Mane	Water Splashes
Peggy Pirate	Laser Purr	Anchor Swing	Right-handed	Rainbow Mane	Squeaky Toys
Robo Steph	Horn Spark	Rocket Boots	Left-handed	Metal Antenna	Magnet Traps
Zlatan Saur	Pixel Shield	Tail Whip	Right-handed	Spiky Green Scales	Water Splashes
Neymar Net	Pixel Shield	Tail Whip	Left-handed	Rainbow Mane	Water Splashes
Starboard Sam	Pixel Shield	Tail Whip	Left-handed	Rainbow Mane	Squeaky Toys
Dino Dan	Dino Dash	Anchor Swing	Left-handed	Metal Antenna	Magnet Traps
Meowford	Dino Dash	Tail Whip	Left-handed	Metal Antenna	Squeaky Toys
Giga Giannis	Laser Purr	Rocket Boots	Left-handed	Metal Antenna	Squeaky Toys
Captain Rex	Horn Spark	Anchor Swing	Right-handed	Spiky Green Scales	Magnet Traps
LeBron Bot	Horn Spark	Anchor Swing	Left-handed	Spiky Green Scales	Water Splashes
Unicorn Ursula	Pixel Shield	Net Glitch	Left-handed	Spiky Green Scales	Water Splashes
Steve of Blocks	Pixel Shield	Pegasus Wings	Right-handed	Metal Antenna	Magnet Traps
Siren Serena	Laser Purr	Anchor Swing	Left-handed	Spiky Green Scales	Water Splashes
Cyber Claw	Pixel Shield	Pegasus Wings	Left-handed	Spiky Green Scales	Magnet Traps
Barnaby Boot	Pixel Shield	Pegasus Wings	Left-handed	Spiky Green Scales	Water Splashes

CLUE 1 Skip counting

We follow robotic boot prints left on the metal deck. They are spaced out in a perfectly repeating pattern.

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



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

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

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

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

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

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, 45, 50, __, 60, 65 → **D**

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

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

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

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

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

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

Scratch space:

Rounding

Our space scanner picks up heat trails near the rocket bay. The screen only shows estimated rounded values.

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

Round 1,616 to the nearest thousand → **T**

Round 4,287 to the nearest hundred $\rightarrow$ **P**

Round 229 to the nearest ten $\rightarrow$ **R**

Round 4,936 to the nearest thousand $\rightarrow$ **U**

Round 133 to the nearest ten $\rightarrow$ **N**

Round 428 to the nearest ten $\rightarrow$ **H**

Round 19 to the nearest ten $\rightarrow$ **E**

Round 66 to the nearest ten $\rightarrow$ **0**

Round 9,435 to the nearest thousand → **F**

Round 249 to the nearest hundred $\rightarrow$ **S**

Round 371 to the nearest ten $\rightarrow$ **L**

Round 112 to the nearest ten → **C**

Round 495 to the nearest hundred $\rightarrow$

Scratch space:

CLUE 3 Addition

We search the pirate ship kitchen. Let us add up all the empty energy drink cans to find where they went.

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

T																			
4189	7826	2037	8032	7190	6632	6632	6272	7190	7236	3414	7826	8599	6272	7236	8402	5311	8599	2960	7490

			T									
6272	4640	6272	4189	2037	8599	5898	6272	6632	6632	2960	2960	7236

$1322 + 2867 = \square \rightarrow \text{[T]}$

$3565 + 2333 = \square \rightarrow \text{[B]}$

$3548 + 3688 = \square \rightarrow \text{[N]}$

$3690 + 2582 = \square \rightarrow \text{[A]}$

$2524 + 2116 = \square \rightarrow \text{[W]}$

$1331 + 706 = \square \rightarrow \text{[E]}$

$2421 + 4769 = \square \rightarrow \text{[I]}$

$3162 + 2149 = \square \rightarrow \text{[F]}$

$5224 + 2266 = \square \rightarrow \text{[M]}$

$3744 + 4288 = \square \rightarrow \text{[V]}$

$4304 + 2328 = \square \rightarrow \text{[L]}$

$1614 + 1800 = \square \rightarrow \text{[S]}$

$3874 + 3952 = \square \rightarrow \text{[H]}$

$1331 + 1629 = \square \rightarrow \text{[O]}$

$2668 + 5931 = \square \rightarrow \text{[R]}$

$5294 + 3108 = \square \rightarrow \text{[K]}$

Scratch space:

CLUE 4 Subtraction

The crew notices some shiny gold coins are missing from the chest. We subtract the remaining coins to see what was stolen.

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

G															
6478	5087	3195	3195	3283	4135	5570	3283	2632	8380	5406	2082	1509	3195	8380	
8380	5406	2082	3794	3794	3195	5087	3195	4135	2632	3283	3794	4477	3195	4135	3195

$$7105 - 627 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$10244 - 4838 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$6658 - 3463 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$7464 - 2987 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$2954 - 322 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$1892 - 383 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$6086 - 1951 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$9535 - 4448 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$12193 - 3813 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$8009 - 4215 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$2160 - 78 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$7328 - 2417 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$5174 - 1891 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$7371 - 1801 = \boxed{} \rightarrow \boxed{\text{I}}$$

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

We need to set up laser traps in the hallways. We will divide our drones evenly to guard every exit.

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:

$10 \div 10 = \boxed{}$

$50 \div 5 = \boxed{}$

$48 \div 8 = \boxed{}$

$72 \div 6 = \boxed{}$

$4 \div 1 = \boxed{}$

$20 \div 10 = \boxed{}$

$72 \div 9 = \boxed{}$

$45 \div 5 = \boxed{}$

$25 \div 5 = \boxed{}$

$56 \div 8 = \boxed{}$

$9 \div 3 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain charges up a horn spark, then grapples with an anchor swing.
2. The villain activates a pixel shield, then grapples with an anchor swing.
3. The villain fires a laser purr, then clears the area with a tail whip.
4. The villain performs a dino dash, then grapples with an anchor swing.
5. The villain fires a laser purr, then escapes through a net glitch.
6. The villain fires a laser purr, then grapples with an anchor swing.
7. The villain performs a dino dash, then blasts away on rocket boots.
8. The villain activates a pixel shield, then escapes through a net glitch.
9. The villain fires a laser purr, then flies off with pegasus wings.
10. The villain activates a pixel shield, then flies off with pegasus wings.
11. The villain performs a dino dash, then flies off with pegasus wings.
12. The villain charges up a horn spark, then escapes through a net glitch.

Answer Key

The Cosmic Cup Caper

Culprit: Messi Mew

Dino Dash · Pegasus Wings · Left-handed · Spiky Green Scales · Water Splashes

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Skip counting): "THE THIEF DOES NOT USE NET GLITCH"

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

Clue 2 (Rounding): "THE SUSPECT LEFT FOOTPRINT ON THE LEFT"

Round 1,616 to the nearest thousand = 2000 (T) · Round 4,287 to the nearest hundred = 4300 (P) · Round 229 to the nearest ten = 230 (R) · Round 4,936 to the nearest thousand = 5000 (U) · Round 133 to the nearest ten = 130 (N) · Round 428 to the nearest ten = 430 (H) · Round 19 to the nearest ten = 20 (E) · Round 66 to the nearest ten = 70 (O) · Round 9,435 to the nearest thousand = 9000 (F) · Round 249 to the nearest hundred = 200 (S) · Round 371 to the nearest ten = 370 (L) · Round 112 to the nearest ten = 110 (C) · Round 495 to the nearest hundred = 500 (I)

Clue 3 (Addition): "THE VILLAIN SHRANK FROM A WATER BALLOON"

$1322 + 2867 = 4189$ (T) · $3565 + 2333 = 5898$ (B) · $3548 + 3688 = 7236$ (N) · $3690 + 2582 = 6272$ (A) · $2524 + 2116 = 4640$ (W) · $1331 + 706 = 2037$ (E) · $2421 + 4769 = 7190$ (I) · $3162 + 2149 = 5311$ (F) · $5224 + 2266 = 7490$ (M) · $3744 + 4288 = 8032$ (V) · $4304 + 2328 = 6632$ (L) · $1614 + 1800 = 3414$ (S) · $3874 + 3952 = 7826$ (H) · $1331 + 1629 = 2960$ (O) · $2668 + 5931 = 8599$ (R) · $5294 + 3108 = 8402$ (K)

Clue 4 (Subtraction): "GREEN DINO SCALES SCATTERED ON THE DECK"

$7105 - 627 = 6478$ (G) · $10244 - 4838 = 5406$ (C) · $6658 - 3463 = 3195$ (E) · $7464 - 2987 = 4477$ (H) · $2954 - 322 = 2632$ (O) · $1892 - 383 = 1509$ (L) · $6086 - 1951 = 4135$ (D) · $9535 - 4448 = 5087$ (R) · $12193 - 3813 = 8380$ (S) · $8009 - 4215 = 3794$ (T) · $2160 - 78 = 2082$ (A) · $7328 - 2417 = 4911$ (K) · $5174 - 1891 = 3283$ (N) · $7371 - 1801 = 5570$ (I)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Messi Mew

$10 \div 10 = 1$ · $50 \div 5 = 10$ · $48 \div 8 = 6$ · $72 \div 6 = 12$ · $4 \div 1 = 4$ · $20 \div 10 = 2$ · $72 \div 9 = 8$ · $45 \div 5 = 9$ · $25 \div 5 = 5$ · $56 \div 8 = 7$ · $9 \div 3 = 3$