



The Cosmic Pixel Cup Caper

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

Detective: _____ Date: _____

The golden trophy has vanished from the Astro-Dome! A sneaky cyber-cat pirate has glitched the security feed and replaced the soccer ball with a ticking TNT block. Use your soccer skills and robot scanner to crack the clues, find the culprit, and save the tournament!

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 glitch pirate is _____

Possible suspects

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

NAME	ROBOT SOCCER POWER	PIRATE SPACE GEAR	DOMINANT KICK	ROBOT FUR COATING	GLITCH TRIGGER
Sir Purr	Mega Kick	Gravity Boots	Right-Footed Kick	Steel Gray Metallic	Ball of Yarn Glow
Admiral Astro	Block Shield	Pixel Cutlass	Left-Footed Kick	Neon Blue Fur	Laser Pointer Beam
Turbo Thomas	Laser Eyes	Pixel Cutlass	Left-Footed Kick	Copper Wire Orange	Ball of Yarn Glow
Byte Beckham	Block Shield	Gravity Boots	Left-Footed Kick	Steel Gray Metallic	Squeaky Toy Noise
Gizmo Gary	Laser Eyes	Jetpack Sails	Left-Footed Kick	Neon Blue Fur	Squeaky Toy Noise
Pixel Pulisic	Block Shield	Radar Patch	Left-Footed Kick	Steel Gray Metallic	Ball of Yarn Glow
Pixel Pele	Laser Eyes	Pixel Cutlass	Left-Footed Kick	Steel Gray Metallic	Squeaky Toy Noise
Kitty Kane	Mega Kick	Jetpack Sails	Left-Footed Kick	Steel Gray Metallic	Ball of Yarn Glow
Bolt Billy	Mega Kick	Plasma Hook	Left-Footed Kick	Neon Blue Fur	Ball of Yarn Glow
Rusty Ray	Laser Eyes	Plasma Hook	Left-Footed Kick	Steel Gray Metallic	Squeaky Toy Noise
Nyancat Ned	Laser Eyes	Plasma Hook	Left-Footed Kick	Copper Wire Orange	Squeaky Toy Noise
Patchy Paul	Laser Eyes	Radar Patch	Right-Footed Kick	Neon Blue Fur	Squeaky Toy Noise
Messi Bot	Warp Dribble	Plasma Hook	Left-Footed Kick	Neon Blue Fur	Ball of Yarn Glow
Robo Ronaldo	Laser Eyes	Gravity Boots	Right-Footed Kick	Steel Gray Metallic	Squeaky Toy Noise
Cosmo Cleo	Mega Kick	Pixel Cutlass	Left-Footed Kick	Copper Wire Orange	Laser Pointer Beam
Sparky Salah	Block Shield	Pixel Cutlass	Left-Footed Kick	Neon Blue Fur	Squeaky Toy Noise
Giga Gerd	Rocket Paws	Pixel Cutlass	Right-Footed Kick	Copper Wire Orange	Laser Pointer Beam
Scurvy Sam	Warp Dribble	Plasma Hook	Right-Footed Kick	Steel Gray Metallic	Ball of Yarn Glow
Robo Rapinoe	Mega Kick	Jetpack Sails	Left-Footed Kick	Steel Gray Metallic	Squeaky Toy Noise
Astro Alex	Rocket Paws	Radar Patch	Left-Footed Kick	Steel Gray Metallic	Squeaky Toy Noise
Byte Baggio	Block Shield	Gravity Boots	Left-Footed Kick	Steel Gray Metallic	Laser Pointer Beam

CLUE 1 Rounding

The scanner in the Cyber-Cove only displays numbers rounded to the nearest ten. Round this power reading to find the first clue.

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

T																T
90	1700	700	20	2000	300	300	230	2000	1100	290	2900	700	4300	1100	2900	90
												T				
1700	230	20	700	230	9000	230	290	230	9000	130	230	90	430	1700		

Round 91 to the nearest ten → **T**

Round 129 to the nearest ten → **P**

Round 427 to the nearest ten → **C**

Round 288 to the nearest ten → **D**

Round 19 to the nearest ten → **V**

Round 744 to the nearest hundred → **E**

Round 234 to the nearest ten → **A**

Round 2,878 to the nearest hundred → **O**

Round 330 to the nearest hundred → **L**

Round 4,274 to the nearest hundred → **S**

Round 2,219 to the nearest thousand → **I**

Round 1,126 to the nearest hundred → **N**

Round 1,658 to the nearest hundred → **H**

Round 9,239 to the nearest thousand → **R**

Scratch space:

CLUE 2 **Addition**

To search the cargo hold, we must count all the pixel blocks and robot fish we find. Add these totals together to reveal the next clue.

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

Diagram illustrating the sequence of numbers and their corresponding boxes (T indicates a transition point):

Row 1: 6832 (T), 3065, 3446, 2101, 3059, 2101, 5194, 3446, 5976, 6832 (T), 7212, 5663, 5976, 7212, 3446, 6240, 8980, 5663, 6832 (T), 3065

Row 2: 6832 (T), 3065, 3446, 5663, 2287, 6186, 3446, 2593, 6832 (T), 2593, 7223, 7223, 6832 (T)

$$6068 + 2912 = \boxed{} \rightarrow \mathbf{W}$$

Scratch space:

CLUE 3

Subtraction

A sneaky pirate cat stole some fuel cells. Subtract the remaining cells from the starting count to find the third clue.

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

T							T												T	
5986	1762	4714	4721	6843	3744	6843	5986	5493	1762	7658	7246	4714	4721	4714	5257	1612	5986	1612		

							T							
5493	8627	2018	4714	1612	3718	8313	5986	6843	8313	2539	6843	7658	5493	4714

9627 - 3641 = → T	6319 - 1598 = → R	4511 - 767 = → B
5278 - 564 = → E	5666 - 3127 = → N	9250 - 2407 = → O
4316 - 2704 = → A	5780 - 287 = → S	5601 - 344 = → D
4973 - 3211 = → H	11710 - 4052 = → I	12903 - 4276 = → Q
11148 - 2835 = → Y	4330 - 612 = → K	12219 - 4973 = → V
6016 - 3998 = → U		

Scratch space:

CLUE 4

Multiplication facts (1-12)

The robot cats are lined up on the soccer field in perfect grids. Multiply the rows by the columns to unlock the fourth clue.

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

W															
42	22	48	11	24	99	5	77	120	22	22	10	30	14	18	8
60	22	120	18	10	10	66	7	48	24	14	18	120	120	100	22
30	11	18	10												

$7 \times 6 = \square \rightarrow \text{W}$

$1 \times 7 = \square \rightarrow \text{C}$

$4 \times 12 = \square \rightarrow \text{F}$

$10 \times 10 = \square \rightarrow \text{H}$

$5 \times 1 = \square \rightarrow \text{D}$

$5 \times 2 = \square \rightarrow \text{L}$

$11 \times 2 = \square \rightarrow \text{E}$

$7 \times 2 = \square \rightarrow \text{R}$

$12 \times 5 = \square \rightarrow \text{M}$

$11 \times 9 = \square \rightarrow \text{N}$

$12 \times 10 = \square \rightarrow \text{T}$

$1 \times 11 = \square \rightarrow \text{O}$

$12 \times 2 = \square \rightarrow \text{U}$

$11 \times 7 = \square \rightarrow \text{S}$

$3 \times 10 = \square \rightarrow \text{G}$

$4 \times 2 = \square \rightarrow \text{Y}$

$3 \times 6 = \square \rightarrow \text{A}$

$11 \times 6 = \square \rightarrow \text{I}$

Scratch space:

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

We need to share the gold coins equally among the crew of the starship. Divide the stash to get 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:

$96 \div 8 = \boxed{}$

$80 \div 10 = \boxed{}$

$45 \div 9 = \boxed{}$

$77 \div 11 = \boxed{}$

$66 \div 11 = \boxed{}$

$32 \div 8 = \boxed{}$

$99 \div 11 = \boxed{}$

$44 \div 4 = \boxed{}$

$12 \div 6 = \boxed{}$

$12 \div 4 = \boxed{}$

$10 \div 1 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain fires laser eyes, then swings a pixel cutlass.
2. The villain performs a warp dribble, then boots up gravity boots.
3. The villain activates a block shield, then opens jetpack sails.
4. The villain performs a mega kick, then swings a plasma hook.
5. The villain fires laser eyes, then swings a plasma hook.
6. The villain uses rocket paws to fly, then opens jetpack sails.
7. The villain performs a warp dribble, then uses a radar patch.
8. The villain activates a block shield, then boots up gravity boots.
9. The villain fires laser eyes, then opens jetpack sails.
10. The villain performs a mega kick, then swings a pixel cutlass.
11. The villain performs a warp dribble, then swings a plasma hook.
12. The villain performs a mega kick, then opens jetpack sails.

Answer Key

The Cosmic Pixel Cup Caper

Culprit: Pixel Pele

Laser Eyes · Pixel Cutlass · Left-Footed Kick · Steel Gray Metallic · Squeaky Toy Noise

Trail: Start 21 → Clue 1 18 → Clue 2 14 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT HAVE A RADAR PATCH"

Round 91 to the nearest ten = 90 (T) · Round 129 to the nearest ten = 130 (P) · Round 427 to the nearest ten = 430 (C) · Round 288 to the nearest ten = 290 (D) · Round 19 to the nearest ten = 20 (V) · Round 744 to the nearest hundred = 700 (E) · Round 234 to the nearest ten = 230 (A) · Round 2,878 to the nearest hundred = 2900 (O) · Round 330 to the nearest hundred = 300 (L) · Round 4,274 to the nearest hundred = 4300 (S) · Round 2,219 to the nearest thousand = 2000 (I) · Round 1,126 to the nearest hundred = 1100 (N) · Round 1,658 to the nearest hundred = 1700 (H) · Round 9,239 to the nearest thousand = 9000 (R)

Clue 2 (Addition): "THE SUSPECT KICKED WITH THEIR LEFT FOOT"

$3378 + 3454 = 6832$ (T) · $1105 + 2341 = 3446$ (E) · $2410 + 3566 = 5976$ (C) · $4701 + 2522 = 7223$ (O) · $1126 + 1933 = 3059$ (U) · $1915 + 4325 = 6240$ (D) · $1012 + 1089 = 2101$ (S) · $4307 + 1879 = 6186$ (L) · $936 + 1657 = 2593$ (F) · $2268 + 2926 = 5194$ (P) · $1317 + 970 = 2287$ (R) · $963 + 2102 = 3065$ (H) · $4928 + 2284 = 7212$ (K) · $2961 + 2702 = 5663$ (I) · $6068 + 2912 = 8980$ (W)

Clue 3 (Subtraction): "THE ROBOT SHIVERED AT A SQUEAKY TOY NOISE"

$9627 - 3641 = 5986$ (T) · $6319 - 1598 = 4721$ (R) · $4511 - 767 = 3744$ (B) · $5278 - 564 = 4714$ (E) · $5666 - 3127 = 2539$ (N) · $9250 - 2407 = 6843$ (O) · $4316 - 2704 = 1612$ (A) · $5780 - 287 = 5493$ (S) · $5601 - 344 = 5257$ (D) · $4973 - 3211 = 1762$ (H) · $11710 - 4052 = 7658$ (I) · $12903 - 4276 = 8627$ (Q) · $11148 - 2835 = 8313$ (Y) · $4330 - 612 = 3718$ (K) · $12219 - 4973 = 7246$ (V) · $6016 - 3998 = 2018$ (U)

Clue 4 (Multiplication facts (1-12)): "WE FOUND STEEL GRAY METALLIC FUR AT THE GOAL"

$7 \times 6 = 42$ (W) · $1 \times 7 = 7$ (C) · $4 \times 12 = 48$ (F) · $10 \times 10 = 100$ (H) · $5 \times 1 = 5$ (D) · $5 \times 2 = 10$ (L) · $11 \times 2 = 22$ (E) · $7 \times 2 = 14$ (R) · $12 \times 5 = 60$ (M) · $11 \times 9 = 99$ (N) · $12 \times 10 = 120$ (T) · $1 \times 11 = 11$ (O) · $12 \times 2 = 24$ (U) · $11 \times 7 = 77$ (S) · $3 \times 10 = 30$ (G) · $4 \times 2 = 8$ (Y) · $3 \times 6 = 18$ (A) · $11 \times 6 = 66$ (I)

Clue 5 (Division facts (1-12)): surviving statement is box 1 → Pixel Pele

$96 \div 8 = 12$ · $80 \div 10 = 8$ · $45 \div 9 = 5$ · $77 \div 11 = 7$ · $66 \div 11 = 6$ · $32 \div 8 = 4$ · $99 \div 11 = 9$ · $44 \div 4 = 11$ · $12 \div 6 = 2$ · $12 \div 4 = 3$ · $10 \div 1 = 10$