



The Asteroid Cup Robbery

Grade 5 math · Fractions of a number, Order of operations, Multiplication, Rounding, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Just moments before the final match of the Star-League Asteroid Cup, the legendary Golden Nether-Star Trophy was stolen from the high-security vault! Witnesses saw a blurry figure wearing sports cleats and space gear fleeing the scene. Use your math and detective skills to crack the clues and catch the Cosmic Renegade!

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 Cosmic Renegade is _____

Possible suspects

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

NAME	SPECIALTY MOVE	DEFENSIVE GEAR	SHOOTING FOOT	HEADWEAR STYLE	KNOWN KRYPTONITE
Captain Messi	block building	solar shield	right kicking	mohawk space helmet	squeaky sneakers
Nova Jokic	teleport kicking	shadow cape	right kicking	mohawk space helmet	space compasses
Blackbeard Bird	block building	warp drive	left kicking	mohawk space helmet	space compasses
Alex Drake	rocket jumping	cyber eye	left kicking	mohawk space helmet	space compasses
Cosmic Marta	rocket jumping	shadow cape	left kicking	neon pixel wig	squeaky sneakers
Zlatan Void	block building	cyber eye	left kicking	mohawk space helmet	squeaky sneakers
Pegleg Pele	laser shooting	warp drive	right kicking	mohawk space helmet	squeaky sneakers
Hook Haaland	gravity dribbling	magnet glove	left kicking	pirate bandanna	squeaky sneakers
Creeper Curry	teleport kicking	magnet glove	right kicking	neon pixel wig	squeaky sneakers
Redbeard Rapinoe	rocket jumping	cyber eye	left kicking	pirate bandanna	space compasses
Enderman Mbappe	rocket jumping	solar shield	right kicking	mohawk space helmet	space compasses
Sir Ronaldo	gravity dribbling	solar shield	right kicking	mohawk space helmet	space compasses
Patchy Kane	rocket jumping	solar shield	right kicking	neon pixel wig	water buckets
Yao Comet	laser shooting	solar shield	left kicking	pirate bandanna	squeaky sneakers
Steve of the Stars	rocket jumping	magnet glove	right kicking	mohawk space helmet	space compasses
Megan Orbit	rocket jumping	magnet glove	left kicking	neon pixel wig	space compasses
Giannis Galaxy	rocket jumping	shadow cape	left kicking	pirate bandanna	space compasses
Kobe Kepler	laser shooting	cyber eye	left kicking	mohawk space helmet	water buckets
Luka Lunar	gravity dribbling	magnet glove	right kicking	neon pixel wig	space compasses
Steph Meteor	block building	solar shield	right kicking	mohawk space helmet	space compasses
Captain Caitlin	laser shooting	warp drive	left kicking	pirate bandanna	water buckets

CLUE 1

Fractions of a number

To track the escape vessel, the Asteroid League Security Team needs to calculate what fraction of the stadium fuel reserve was drained during the heist.

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

T			T																
37	31	9	37	31	28	9	22	11	6	9	40	19	6	37	39	9	34	25	
34	40	31	34	11	6	39	35	34	5	9									

$4/8 \text{ of } 74 = \square \rightarrow \text{T}$

$1/5 \text{ of } 95 = \square \rightarrow \text{N}$

$1/8 \text{ of } 88 = \square \rightarrow \text{D}$

$3/6 \text{ of } 50 = \square \rightarrow \text{R}$

$1/3 \text{ of } 15 = \square \rightarrow \text{P}$

$2/8 \text{ of } 112 = \square \rightarrow \text{I}$

$1/2 \text{ of } 12 = \square \rightarrow \text{O}$

$2/5 \text{ of } 85 = \square \rightarrow \text{A}$

$3/6 \text{ of } 44 = \square \rightarrow \text{F}$

$2/10 \text{ of } 195 = \square \rightarrow \text{W}$

$1/5 \text{ of } 45 = \square \rightarrow \text{E}$

$2/6 \text{ of } 93 = \square \rightarrow \text{H}$

$1/5 \text{ of } 175 = \square \rightarrow \text{C}$

$8/10 \text{ of } 50 = \square \rightarrow \text{S}$

Scratch space:

Order of operations

Inside the locker room, the security keypad was jammed with a multi-step code. Solve the order of operations to unlock the camera logs.

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

The diagram shows two rows of boxes, each representing a position in a sequence. The top row has 18 boxes, and the bottom row has 16 boxes. Some boxes are shaded orange and contain the letter 'T', indicating they are 'true' or 'filled'. The numbers below the boxes represent the values in each position.

Top row (18 boxes):

- Box 1: Orange, T
- Box 2: White
- Box 3: White
- Box 4: White
- Box 5: White
- Box 6: White
- Box 7: White
- Box 8: White
- Box 9: White
- Box 10: White
- Box 11: White
- Box 12: Orange, T
- Box 13: White
- Box 14: White
- Box 15: White
- Box 16: White
- Box 17: Orange, T
- Box 18: White

Bottom row (16 boxes):

- Box 1: White
- Box 2: White
- Box 3: Orange, T
- Box 4: White
- Box 5: White
- Box 6: White
- Box 7: White
- Box 8: White
- Box 9: Orange, T
- Box 10: White
- Box 11: White
- Box 12: White
- Box 13: White
- Box 14: White
- Box 15: White
- Box 16: White

$$42 + 9 \times 2 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$6 \times 7 - 23 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$$4 \times 8 - 14 = \boxed{} \rightarrow \boxed{0}$$

$$9 \times 8 - 25 = \boxed{} \rightarrow \boxed{\mathbf{N}}$$

$$10 + 2 \times 3 = \boxed{} \rightarrow \boxed{\text{P}}$$

$7 \times 12 - 23 = \boxed{} \rightarrow \mathbf{S}$

$$2 + 3 \times 2 = \boxed{} \rightarrow \boxed{\text{I}}$$

$3 \times 6 - 5 = \boxed{} \rightarrow \boxed{\mathbf{G}}$

$$2 \times 12 - 10 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$52 + 2 \times 8 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$10 \times 7 - 21 = \boxed{} \rightarrow \boxed{\mathbf{D}}$$

$$13 + 7 \times 7 = \boxed{} \rightarrow \boxed{\text{E}}$$

$9 \times 5 - 17 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$11 \times 7 - 13 = \boxed{} \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 3
Multiplication facts (1-12)

The thief left a trail of grid blocks. We need to multiply the rows of blocks in the corridor to see how far the villain ran.

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

T												T						
20	3	64	2	108	4	4	70	108	63	27	64	20	88	21	108	45	45	5
63	64	70	24	88	121	70	120	64	120	99	48	121	70	88	88	64	88	

$4 \times 5 = \square \rightarrow \boxed{\text{T}}$

$5 \times 9 = \square \rightarrow \boxed{\text{Z}}$

$3 \times 7 = \square \rightarrow \boxed{\text{D}}$

$1 \times 5 = \square \rightarrow \boxed{\text{Y}}$

$2 \times 1 = \square \rightarrow \boxed{\text{V}}$

$11 \times 11 = \square \rightarrow \boxed{\text{P}}$

$8 \times 6 = \square \rightarrow \boxed{\text{M}}$

$4 \times 1 = \square \rightarrow \boxed{\text{L}}$

$10 \times 7 = \square \rightarrow \boxed{\text{A}}$

$1 \times 3 = \square \rightarrow \boxed{\text{H}}$

$7 \times 9 = \square \rightarrow \boxed{\text{N}}$

$11 \times 8 = \square \rightarrow \boxed{\text{S}}$

$8 \times 8 = \square \rightarrow \boxed{\text{E}}$

$9 \times 11 = \square \rightarrow \boxed{\text{O}}$

$12 \times 10 = \square \rightarrow \boxed{\text{C}}$

$3 \times 8 = \square \rightarrow \boxed{\text{R}}$

$9 \times 12 = \square \rightarrow \boxed{\text{I}}$

$9 \times 3 = \square \rightarrow \boxed{\text{G}}$

Scratch space:

CLUE 4 Rounding

Our space-radar scans the asteroid belt but only gives us rounded estimates of the suspects speeds. Round the readings to find the exact tracker signal.

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

W										W								
90	9000	500	170	1700	30	900	230	700	170	2300	230	90	3000	70	1300	230	370	9000
2300	9000	20	700	9000	3700	70	3700	130	230	1300								

Round 93 to the nearest ten → **W**

Round 231 to the nearest ten → **A**

Round 1,330 to the nearest hundred → **P**

Round 74 to the nearest ten → **S**

Round 19 to the nearest ten → **L**

Round 3,261 to the nearest thousand → **K**

Round 8,745 to the nearest thousand → **E**

Round 174 to the nearest ten → **O**

Round 2,267 to the nearest hundred → **H**

Round 1,699 to the nearest hundred → **U**

Round 938 to the nearest hundred → **D**

Round 366 to the nearest ten → **C**

Round 132 to the nearest ten → **R**

Round 743 to the nearest hundred → **M**

Round 3,719 to the nearest hundred → **T**

Round 26 to the nearest ten → **N**

Round 543 to the nearest hundred → **F**

Scratch space:

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

The guards are sharing the recovered tracking beacons equally among their patrol starships. Divide the fleet supplies to get the final coordinate.

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:

$18 \div 6 = \boxed{}$

$108 \div 12 = \boxed{}$

$12 \div 12 = \boxed{}$

$10 \div 1 = \boxed{}$

$36 \div 9 = \boxed{}$

$8 \div 4 = \boxed{}$

$77 \div 11 = \boxed{}$

$12 \div 1 = \boxed{}$

$36 \div 6 = \boxed{}$

$32 \div 4 = \boxed{}$

$60 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain teleported past the asteroid guards, then stole the golden nether star cup.
2. The villain hacked the locker room blast door, then grabbed the pirate treasure chest of medals.
3. The villain bribed the goalie with star gems, then stole the golden nether star cup.
4. The villain teleported past the asteroid guards, then swiped the diamond gravity boots.
5. The villain used a gravity cheat code to float, then nabbed the netherite basketball.
6. The villain teleported past the asteroid guards, then grabbed the pirate treasure chest of medals.
7. The villain teleported past the asteroid guards, then pocketed the cosmic championship soccer ball.
8. The villain used a gravity cheat code to float, then stole the golden nether star cup.
9. The villain blasted through the stadium ceiling, then swiped the diamond gravity boots.
10. The villain bribed the goalie with star gems, then pocketed the cosmic championship soccer ball.
11. The villain blasted through the stadium ceiling, then stole the golden nether star cup.
12. The villain blasted through the stadium ceiling, then nabbed the netherite basketball.

Answer Key

The Asteroid Cup Robbery

Culprit: Enderman Mbappe

rocket jumping · solar shield · right kicking · mohawk space helmet · space compasses

Trail: Start 21 → Clue 1 18 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE THIEF DOES NOT WEAR A SHADOW CAPE"

$\frac{4}{8}$ of 74 = 37 (T) · $\frac{1}{5}$ of 95 = 19 (N) · $\frac{1}{8}$ of 88 = 11 (D) · $\frac{3}{6}$ of 50 = 25 (R) · $\frac{1}{3}$ of 15 = 5 (P) · $\frac{2}{8}$ of 112 = 28 (I) · $\frac{1}{2}$ of 12 = 6 (O) · $\frac{2}{5}$ of 85 = 34 (A) · $\frac{3}{6}$ of 44 = 22 (F) · $\frac{2}{10}$ of 195 = 39 (W) · $\frac{1}{5}$ of 45 = 9 (E) · $\frac{2}{6}$ of 93 = 31 (H) · $\frac{1}{5}$ of 175 = 35 (C) · $\frac{8}{10}$ of 50 = 40 (S)

Clue 2 (Order of operations): "THE GOALPOST WAS DENTED ON THE RIGHT SIDE"

$42 + 9 \times 2 = 60$ (T) · $6 \times 7 - 23 = 19$ (W) · $4 \times 8 - 14 = 18$ (O) · $9 \times 8 - 25 = 47$ (N) · $10 + 2 \times 3 = 16$ (P) · $7 \times 12 - 23 = 61$ (S) · $2 + 3 \times 2 = 8$ (I) · $3 \times 6 - 5 = 13$ (G) · $2 \times 12 - 10 = 14$ (L) · $52 + 2 \times 8 = 68$ (R) · $10 \times 7 - 21 = 49$ (D) · $13 + 7 \times 7 = 62$ (E) · $9 \times 5 - 17 = 28$ (A) · $11 \times 7 - 13 = 64$ (H)

Clue 3 (Multiplication facts (1-12)): "THE VILLAIN GETS DIZZY NEAR SPACE COMPASSES"

$4 \times 5 = 20$ (T) · $5 \times 9 = 45$ (Z) · $3 \times 7 = 21$ (D) · $1 \times 5 = 5$ (Y) · $2 \times 1 = 2$ (V) · $11 \times 11 = 121$ (P) · $8 \times 6 = 48$ (M) · $4 \times 1 = 4$ (L) · $10 \times 7 = 70$ (A) · $1 \times 3 = 3$ (H) · $7 \times 9 = 63$ (N) · $11 \times 8 = 88$ (S) · $8 \times 8 = 64$ (E) · $9 \times 11 = 99$ (O) · $12 \times 10 = 120$ (C) · $3 \times 8 = 24$ (R) · $9 \times 12 = 108$ (I) · $9 \times 3 = 27$ (G)

Clue 4 (Rounding): "WE FOUND A MOHAWK SPACE HELMET STRAP"

Round 93 to the nearest ten = 90 (W) · Round 231 to the nearest ten = 230 (A) · Round 1,330 to the nearest hundred = 1300 (P) · Round 74 to the nearest ten = 70 (S) · Round 19 to the nearest ten = 20 (L) · Round 3,261 to the nearest thousand = 3000 (K) · Round 8,745 to the nearest thousand = 9000 (E) · Round 174 to the nearest ten = 170 (O) · Round 2,267 to the nearest hundred = 2300 (H) · Round 1,699 to the nearest hundred = 1700 (U) · Round 938 to the nearest hundred = 900 (D) · Round 366 to the nearest ten = 370 (C) · Round 132 to the nearest ten = 130 (R) · Round 743 to the nearest hundred = 700 (M) · Round 3,719 to the nearest hundred = 3700 (T) · Round 26 to the nearest ten = 30 (N) · Round 543 to the nearest hundred = 500 (F)

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

$18 \div 6 = 3$ · $108 \div 12 = 9$ · $12 \div 12 = 1$ · $10 \div 1 = 10$ · $36 \div 9 = 4$ · $8 \div 4 = 2$ · $77 \div 11 = 7$ · $12 \div 1 = 12$ · $36 \div 6 = 6$ · $32 \div 4 = 8$ · $60 \div 12 = 5$