The Case of the Missing Cosmic Cup

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

Detective: _____ **Date:** _____

Just minutes before the championship match of the Space Dino Soccer League, someone sneaked into the team locker room and snatched the golden Cosmic Cup! Detectives must review the stadium clues to catch the villain.

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 Trophy Thief is _____

Possible suspects

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

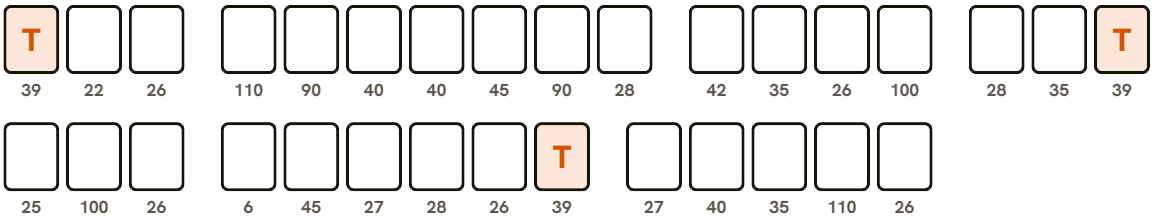
NAME	MAIN SOCCER MOVE	SPECIAL GEAR	KICKING FOOT	DINO FEATURE	DISTRACTION
Astro Pterodactyl	Laser Dribble	Hologram Trap	Right footed	Silver helmet	Catnip spray
Rex Comet	Rocket Pass	Sonic Whistle	Right footed	Silver helmet	Squeaky toy
Brachio Bot	Rocket Pass	Turbo Boots	Left footed	Silver helmet	Catnip spray
Tricera Tech	Meteor Kick	Magnet Glove	Right footed	Green scales	Laser pointer
Titan Spike	Rocket Pass	Turbo Boots	Left footed	Green scales	Catnip spray
Matrix Maiasaura	Jetpack Dash	Turbo Boots	Left footed	Purple crest	Catnip spray
Dynamo Dino	Rocket Pass	Hologram Trap	Left footed	Silver helmet	Catnip spray
Robo Raptor	Jetpack Dash	Plasma Shield	Left footed	Purple crest	Catnip spray
Comet Crusher	Gravity Flip	Hologram Trap	Right footed	Purple crest	Squeaky toy
Turbo Raptor	Laser Dribble	Plasma Shield	Left footed	Silver helmet	Laser pointer
Cosmo Claw	Meteor Kick	Plasma Shield	Left footed	Silver helmet	Catnip spray
Circuit Ankylo	Jetpack Dash	Turbo Boots	Left footed	Silver helmet	Catnip spray
Pixel Parasaur	Gravity Flip	Turbo Boots	Right footed	Green scales	Laser pointer
Laser Lizard	Jetpack Dash	Hologram Trap	Right footed	Green scales	Squeaky toy
Pulsar Ptero	Rocket Pass	Hologram Trap	Left footed	Green scales	Squeaky toy
Quasar Quad	Meteor Kick	Magnet Glove	Left footed	Silver helmet	Catnip spray
Sparky Spino	Laser Dribble	Magnet Glove	Right footed	Purple crest	Squeaky toy
Orbit Dino	Rocket Pass	Plasma Shield	Left footed	Green scales	Laser pointer
Radar Rex	Meteor Kick	Sonic Whistle	Right footed	Purple crest	Laser pointer
Nova Dino	Gravity Flip	Sonic Whistle	Left footed	Purple crest	Squeaky toy
Stego Star	Laser Dribble	Turbo Boots	Left footed	Purple crest	Squeaky toy

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CLUE 1 Skip counting

> The stadium security lights pulse in steady groups along the runway. Skip counting the blinks unlocks our first clue.

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



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, 80, 90, ___, 110, 120 ☐ → S

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 ☐ → O

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 ☐ → U

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 ☐ → I

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

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → M

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 ☐ → N

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 ☐ → D

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 ☐ → A

Skip-count by 10s. Fill the blank: 10, 20, 30, ___, 50, 60 ☐ → L

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

Scratch space:

CLUE 2 Rounding

The digital scoreboard radar only shows player speeds rounded to the nearest ten. Rounding the numbers decodes the second clue.

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

T							T									T				T			
90	3000	3700	110	1100	3700	20	9000	90	130	130	30	1300	700	170	370	290	110	90	110	1300	1300	90	290	500	200	20	430	200

Round 93 to the nearest ten ☐ → T

Round 2,877 to the nearest thousand ☐ → U

Round 168 to the nearest ten ☐ → A

Round 114 to the nearest ten ☐ → F

Round 26 to the nearest ten ☐ → H

Round 8,617 to the nearest thousand ☐ → N

Round 286 to the nearest ten ☐ → E

Round 374 to the nearest ten ☐ → L

Round 1,296 to the nearest hundred ☐ → O

Round 1,089 to the nearest hundred ☐ → P

Round 739 to the nearest hundred ☐ → W

Round 430 to the nearest ten ☐ → C

Round 208 to the nearest hundred ☐ → K

Round 3,702 to the nearest hundred ☐ → R

Round 500 to the nearest hundred ☐ → D

Round 24 to the nearest ten ☐ → I

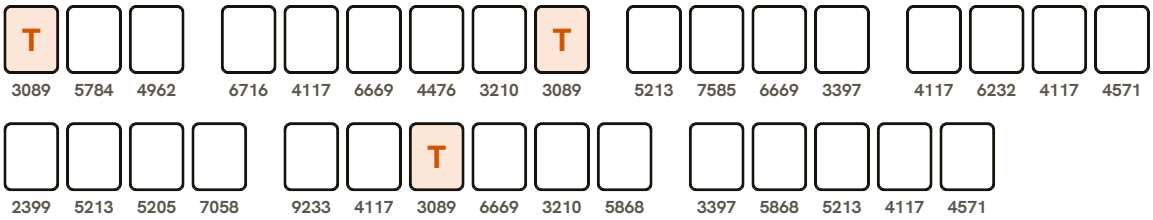
Round 129 to the nearest ten ☐ → S

Scratch space:

CLUE 3 Addition

> The referee tallied up all the extra training equipment used during practice. Adding the sets gives us our third clue.

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



1416 + 1673 = ☐ → T	1668 + 731 = ☐ → F	2611 + 2594 = ☐ → O
3767 + 2902 = ☐ → N	1136 + 2074 = ☐ → I	2856 + 2928 = ☐ → H
1819 + 4049 = ☐ → P	2175 + 2787 = ☐ → E	1112 + 2285 = ☐ → S
2796 + 4262 = ☐ → M	3042 + 1529 = ☐ → Y	2123 + 3090 = ☐ → R
2995 + 3237 = ☐ → W	1344 + 2773 = ☐ → A	3234 + 3482 = ☐ → B
5965 + 3268 = ☐ → C	3015 + 1461 = ☐ → D	2740 + 4845 = ☐ → U

Scratch space:

CLUE 4 Subtraction

> The equipment manager checked how many space soccer balls remained after warmups. Subtracting the missing balls reveals the fourth clue.

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



5994 - 1011 = ☐ → S	9614 - 4042 = ☐ → C	9737 - 761 = ☐ → A
5874 - 3265 = ☐ → T	3340 - 496 = ☐ → I	10722 - 2448 = ☐ → D
8172 - 1275 = ☐ → R	5474 - 591 = ☐ → L	5907 - 4424 = ☐ → M
2139 - 903 = ☐ → P	10523 - 2055 = ☐ → H	3722 - 2159 = ☐ → N
10034 - 2235 = ☐ → O	9101 - 2946 = ☐ → E	3050 - 1758 = ☐ → V

Scratch space:

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

> The head coach split the snack juice boxes evenly among the dino roster. Dividing the totals opens 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:

84 ÷ 7 = ☐	16 ÷ 8 = ☐	21 ÷ 3 = ☐	80 ÷ 10 = ☐	44 ÷ 4 = ☐
40 ÷ 10 = ☐	36 ÷ 4 = ☐	30 ÷ 5 = ☐	15 ÷ 3 = ☐	3 ÷ 3 = ☐
60 ÷ 6 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain blasted the ball skyward, then zipped past with turbo boots.
2. The villain zoomed across the pitch, then zipped past with turbo boots.
3. The villain blasted the ball skyward, then activated a plasma shield.
4. The villain blasted the ball skyward, then blew a sonic whistle.
5. The villain zoomed across the pitch, then projected a hologram trap.
6. The villain blasted the ball skyward, then grabbed metal with magnet gloves.
7. The villain launched a pass downfield, then zipped past with turbo boots.
8. The villain flipped the stadium gravity, then blew a sonic whistle.
9. The villain dribbled through defenses, then blew a sonic whistle.
10. The villain dribbled through defenses, then grabbed metal with magnet gloves.
11. The villain blasted the ball skyward, then projected a hologram trap.
12. The villain launched a pass downfield, then projected a hologram trap.

TEACHER / PARENT

Answer Key

The Case of the Missing Cosmic Cup

Culprit: Cosmo Claw

Meteor Kick · Plasma Shield · Left footed · Silver helmet · Catnip spray

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Skip counting): "THE VILLAIN DOES NOT USE MAGNET GLOVE"

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, 80, 90, ___, 110, 120 = 100 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 = 35 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (G) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 = 25 (U) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 = 90 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 = 22 (H) · Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (M) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (E) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 = 42 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, ___, 50, 60 = 40 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 = 110 (V)

Clue 2 (Rounding): "TURF PRINTS SHOW A LEFT FOOTED KICK"

Round 93 to the nearest ten = 90 (T) · Round 2,877 to the nearest thousand = 3000 (U) · Round 168 to the nearest ten = 170 (A) · Round 114 to the nearest ten = 110 (F) · Round 26 to the nearest ten = 30 (H) · Round 8,617 to the nearest thousand = 9000 (N) · Round 286 to the nearest ten = 290 (E) · Round 374 to the nearest ten = 370 (L) · Round 1,296 to the nearest hundred = 1300 (O) · Round 1,089 to the nearest hundred = 1100 (P) · Round 739 to the nearest hundred = 700 (W) · Round 430 to the nearest ten = 430 (C) · Round 208 to the nearest hundred = 200 (K) · Round 3,702 to the nearest hundred = 3700 (R) · Round 500 to the nearest hundred = 500 (D) · Round 24 to the nearest ten = 20 (I) · Round 129 to the nearest ten = 130 (S)

Clue 3 (Addition): "THE BANDIT RUNS AWAY FROM CATNIP SPRAY"

1416 + 1673 = 3089 (T) · 1668 + 731 = 2399 (F) · 2611 + 2594 = 5205 (O) · 3767 + 2902 = 6669 (N) · 1136 + 2074 = 3210 (I) · 2856 + 2928 = 5784 (H) · 1819 + 4049 = 5868 (P) · 2175 + 2787 = 4962 (E) · 1112 + 2285 = 3397 (S) · 2796 + 4262 = 7058 (M) · 3042 + 1529 = 4571 (Y) · 2123 + 3090 = 5213 (R) · 2995 + 3237 = 6232 (W) · 1344 + 2773 = 4117 (A) · 3234 + 3482 = 6716 (B) · 5965 + 3268 = 9233 (C) · 3015 + 1461 = 4476 (D) · 2740 + 4845 = 7585 (U)

Clue 4 (Subtraction): "SCRAPED SILVER HELMET PAINT ON THE POST"

5994 - 1011 = 4983 (S) · 9614 - 4042 = 5572 (C) · 9737 - 761 = 8976 (A) · 5874 - 3265 = 2609 (T) · 3340 - 496 = 2844 (I) · 10722 - 2448 = 8274 (D) · 8172 - 1275 = 6897 (R) · 5474 - 591 = 4883 (L) · 5907 - 4424 = 1483 (M) · 2139 - 903 = 1236 (P) · 10523 - 2055 = 8468 (H) · 3722 - 2159 = 1563 (N) · 10034 - 2235 = 7799 (O) · 9101 - 2946 = 6155 (E) · 3050 - 1758 = 1292 (V)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Cosmo Claw

84 ÷ 7 = 12 · 16 ÷ 8 = 2 · 21 ÷ 3 = 7 · 80 ÷ 10 = 8 · 44 ÷ 4 = 11 · 40 ÷ 10 = 4 · 36 ÷ 4 = 9 · 30 ÷ 5 = 6 · 15 ÷ 3 = 5 · 3 ÷ 3 = 1 · 60 ÷ 6 = 10