



The Cosmic Court Caper

Grade 2 math · Place value, Addition, Subtraction, Multiplication, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

The golden Championship Star has been stolen right off the trophy stand at the Lunar Dome Arena! Coach Cosmo needs your help to scan the galactic basketball court and find the sneaky Space Snatcher.

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 Snatcher is _____

Possible suspects

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

NAME	SIGNATURE MOVE	SPECIAL GEAR	SHOOTING HAND	HAIR COLOR	WEAKNESS
Orion	star power shooting	gravity shoes	right handed shooter	silver buzzcut	loud whistle
Nova	laser grid blocking	gravity shoes	left handed shooter	silver buzzcut	loud whistle
Sputnik	laser grid blocking	glow jersey	right handed shooter	silver buzzcut	stardust allergy
Cosmo	laser grid blocking	jetpack boost	right handed shooter	orange spikes	freeze ray
Spud	rocket boost passing	magnet gloves	left handed shooter	orange spikes	freeze ray
Comet	rocket boost passing	jetpack boost	right handed shooter	silver buzzcut	loud whistle
Giannis	zero gravity dunking	jetpack boost	left handed shooter	silver buzzcut	stardust allergy
Shaq	star power shooting	jetpack boost	left handed shooter	blue afro	stardust allergy
Yuri	star power shooting	glow jersey	left handed shooter	orange spikes	stardust allergy
Jordan	star power shooting	jetpack boost	right handed shooter	silver buzzcut	stardust allergy
Reggie	star power shooting	glow jersey	left handed shooter	blue afro	loud whistle
Sally	rocket boost passing	gravity shoes	right handed shooter	blue afro	loud whistle
Peggy	star power shooting	jetpack boost	left handed shooter	orange spikes	stardust allergy
Steph	meteor ball dribbling	glow jersey	right handed shooter	silver buzzcut	loud whistle
Mae	laser grid blocking	magnet gloves	right handed shooter	blue afro	freeze ray
Yao	laser grid blocking	gravity shoes	right handed shooter	silver buzzcut	stardust allergy
Neil	laser grid blocking	visor radar	left handed shooter	blue afro	loud whistle
Buzz	star power shooting	jetpack boost	right handed shooter	orange spikes	freeze ray
LeBron	meteor ball dribbling	glow jersey	right handed shooter	blue afro	stardust allergy
Eclipse	zero gravity dunking	jetpack boost	right handed shooter	silver buzzcut	stardust allergy
Astro	laser grid blocking	magnet gloves	right handed shooter	silver buzzcut	stardust allergy

CLUE 1 Place value

To unlock the arena security gate we must look at the glowing digital lock. The blinking screen shows a code made of hundreds tens and ones.

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

Two rows of 18 empty boxes each, with some boxes containing numbers and one box containing the letter 'T'.

Row 1: 57, 65, 70, 78, 46, 63, 63, 87, 46, 28, 56, 11, 70, 92, 28, 11, 57, T

Row 2: 65, 87, 78, 70, 44, 87, 68, 28, 70, 57, T, 68, 63, 11, 78, 70, 92

What number has 5 tens and 7 ones? → T

What number has 7 tens and 0 ones? → **E**

What number has 7 tens and 8 ones? → **V**

What number has 6 tens and 3 ones? → **L**

What number has 6 tens and 5 ones? → **H**

What number has 4 tens and 4 ones? → **M**

What number has 6 tens and 8 ones? → **G**

What number has 4 tens and 6 ones? →

1

What number has 5 tens and 6 ones? → **D**

What number has 1 ten and 1 one? → **0**

What number has 2 tens and 8 ones? → **N**

What number has 8 tens and 7 ones? → **A**

What number has 9 tens and 2 ones? → **S**

Scratch space:

CLUE 2 Addition

We found a pile of neon basketballs near the court. Let us add up all the green balls and yellow balls to find our total.

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

T																T
86	76	64	56	46	64	83	52	59	53	96	64	56	76	96	86	
		T		T							T					
65	39	86	76	86	76	64	54	39	68	76	86	76	83	46	48	

$49 + 37 = \square \rightarrow$ T	$17 + 39 = \square \rightarrow$ S	$17 + 37 = \square \rightarrow$ R
$29 + 36 = \square \rightarrow$ W	$31 + 37 = \square \rightarrow$ G	$20 + 33 = \square \rightarrow$ F
$25 + 14 = \square \rightarrow$ I	$39 + 25 = \square \rightarrow$ E	$18 + 30 = \square \rightarrow$ D
$25 + 34 = \square \rightarrow$ Y	$26 + 20 = \square \rightarrow$ N	$47 + 49 = \square \rightarrow$ O
$42 + 34 = \square \rightarrow$ H	$29 + 54 = \square \rightarrow$ A	$33 + 19 = \square \rightarrow$ K

Scratch space:

CLUE 3

The team cargo bay was robbed of some space snacks. We know how many we started with and we must subtract what is left.

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

The diagram illustrates a sequence of numbers arranged in two rows. The top row contains 18 boxes, and the bottom row contains 10 boxes. Each box is labeled with a number below it. Some boxes are shaded orange and contain the letter 'T', indicating they are 'true' or 'active' in the sequence.

Row	Box Index	Value	Active (T)
Top	1	66	Yes
Top	2	43	No
Top	3	35	No
Top	4	61	No
Top	5	68	No
Top	6	48	No
Top	7	48	No
Top	8	53	No
Top	9	68	No
Top	10	18	No
Top	11	87	No
Top	12	18	No
Top	13	35	No
Top	14	35	No
Top	15	59	No
Top	16	35	No
Top	17	58	No
Top	18	53	No
Bottom	1	13	No
Bottom	2	25	No
Bottom	3	68	No
Bottom	4	16	No
Bottom	5	43	No
Bottom	6	66	Yes
Bottom	7	87	No
Bottom	8	66	Yes
Bottom	9	53	No
Bottom	10	25	No
Bottom	11	58	No
Bottom	12	20	No
Bottom	13	87	No
Bottom	14	66	Yes

$102 - 36 = \boxed{} \rightarrow \boxed{\text{T}}$

$74 - 26 = \boxed{} \rightarrow \boxed{\text{L}}$

$87 - 19 = \square \rightarrow \boxed{\text{I}}$

$69 - 16 = \square \rightarrow \boxed{\mathbf{A}}$

51 - 33 = → **N**

$$63 - 20 = \boxed{} \rightarrow \boxed{\text{H}}$$

$90 - 3 = \square \rightarrow \boxed{\text{S}}$

$15 - 2 = \square \rightarrow \boxed{\mathbf{B}}$

$39 - 23 = \square \rightarrow \boxed{\mathbf{G}}$

$$68 - 33 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$36 - 16 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$54 - 29 = \boxed{} \rightarrow \boxed{\text{R}}$$

$77 - 18 = \square \rightarrow \boxed{\mathbf{Z}}$

$63 - 2 = \square \rightarrow \boxed{\mathbf{V}}$

$$87 - 29 = \boxed{} \rightarrow \boxed{\text{D}}$$

Scratch space:

Multiplication facts (1-12)

The storage room has rows of rocket fuel crates. We can multiply the rows and columns to count them fast.

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

72 99 20 9 50 64 5 99 12 20 8 4 12 72 20 5 144 72 99

33 8 55 12 64 3 72 99 66 64 55

$9 \times 8 = \square \rightarrow \mathbf{A}$

$$3 \times 4 = \boxed{} \rightarrow \boxed{\text{H}}$$

$3 \times 11 = \boxed{} \rightarrow \boxed{0}$

$4 \times 1 = \boxed{} \rightarrow \boxed{\text{Y}}$

$4 \times 2 = \square \rightarrow \boxed{\mathbf{N}}$

$5 \times 11 = \boxed{} \rightarrow \boxed{\text{T}}$

$12 \times 12 = \boxed{} \rightarrow \boxed{\text{W}}$

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

$9 \times 1 = \boxed{} \rightarrow \boxed{\text{L}}$

$9 \times 11 =$ $\rightarrow$ **S**

$1 \times 3 = \square \rightarrow \boxed{\mathbf{B}}$

$5 \times 1 = \square \rightarrow \mathbf{R}$

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

$$5 \times 4 = \boxed{} \rightarrow \boxed{1}$$

$10 \times 5 = \boxed{} \rightarrow \boxed{\mathbf{V}}$

Scratch space:

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

The laser scale needs a total weight of space boots to open the secret locker. Find the missing number to balance the scale.

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:

$6 + \underline{\quad} = 16$

$5 + \underline{\quad} = 10$

$6 + \underline{\quad} = 14$

$9 + \underline{\quad} = 16$

$10 + \underline{\quad} = 13$

$3 + \underline{\quad} = 4$

$1 + \underline{\quad} = 3$

$4 + \underline{\quad} = 13$

$8 + \underline{\quad} = 14$

$3 + \underline{\quad} = 7$

$8 + \underline{\quad} = 20$

Step 2 - cross out the sentence with each answer:

1. The villain blocks with a laser grid, then activates a jetpack boost.
2. The villain dribbles a heavy meteor, then flashes a bright glow jersey.
3. The villain shoots a glowing star ball, then flashes a bright glow jersey.
4. The villain blocks with a laser grid, then checks a high tech visor radar.
5. The villain blocks with a laser grid, then flashes a bright glow jersey.
6. The villain passes with a rocket blast, then flashes a bright glow jersey.
7. The villain blocks with a laser grid, then swipes with magnet gloves.
8. The villain dunks in zero gravity, then activates a jetpack boost.
9. The villain dribbles a heavy meteor, then activates a jetpack boost.
10. The villain blocks with a laser grid, then turns on gravity shoes.
11. The villain shoots a glowing star ball, then activates a jetpack boost.
12. The villain dunks in zero gravity, then flashes a bright glow jersey.

Answer Key

The Cosmic Court Caper

Culprit: Jordan

star power shooting · jetpack boost · right handed shooter · silver buzzcut · stardust allergy

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT HAVE MAGNET GLOVES"

What number has 5 tens and 7 ones? = 57 (T) · What number has 7 tens and 0 ones? = 70 (E) · What number has 7 tens and 8 ones? = 78 (V) · What number has 6 tens and 3 ones? = 63 (L) · What number has 6 tens and 5 ones? = 65 (H) · What number has 4 tens and 4 ones? = 44 (M) · What number has 6 tens and 8 ones? = 68 (G) · What number has 4 tens and 6 ones? = 46 (I) · What number has 5 tens and 6 ones? = 56 (D) · What number has 1 ten and 1 one? = 11 (O) · What number has 2 tens and 8 ones? = 28 (N) · What number has 8 tens and 7 ones? = 87 (A) · What number has 9 tens and 2 ones? = 92 (S)

Clue 2 (Addition): "THE SNEAKY FOE SHOT WITH THE RIGHT HAND"

$49 + 37 = 86$ (T) · $17 + 39 = 56$ (S) · $17 + 37 = 54$ (R) · $29 + 36 = 65$ (W) · $31 + 37 = 68$ (G) · $20 + 33 = 53$ (F) · $25 + 14 = 39$ (I) · $39 + 25 = 64$ (E) · $18 + 30 = 48$ (D) · $25 + 34 = 59$ (Y) · $26 + 20 = 46$ (N) · $47 + 49 = 96$ (O) · $42 + 34 = 76$ (H) · $29 + 54 = 83$ (A) · $33 + 19 = 52$ (K)

Clue 3 (Subtraction): "THE VILLAIN SNEEZED AT BRIGHT STARDUST"

$102 - 36 = 66$ (T) · $74 - 26 = 48$ (L) · $87 - 19 = 68$ (I) · $69 - 16 = 53$ (A) · $51 - 33 = 18$ (N) · $63 - 20 = 43$ (H) · $90 - 3 = 87$ (S) · $15 - 2 = 13$ (B) · $39 - 23 = 16$ (G) · $68 - 33 = 35$ (E) · $36 - 16 = 20$ (U) · $54 - 29 = 25$ (R) · $77 - 18 = 59$ (Z) · $63 - 2 = 61$ (V) · $87 - 29 = 58$ (D)

Clue 4 (Multiplication facts (1-12)): "A SILVER SHINY HAIR WAS ON THE BASKET"

$9 \times 8 = 72$ (A) · $3 \times 4 = 12$ (H) · $3 \times 11 = 33$ (O) · $4 \times 1 = 4$ (Y) · $4 \times 2 = 8$ (N) · $5 \times 11 = 55$ (T) · $12 \times 12 = 144$ (W) · $8 \times 8 = 64$ (E) · $9 \times 1 = 9$ (L) · $9 \times 11 = 99$ (S) · $1 \times 3 = 3$ (B) · $5 \times 1 = 5$ (R) · $6 \times 11 = 66$ (K) · $5 \times 4 = 20$ (I) · $10 \times 5 = 50$ (V)

Clue 5 (Missing addends): surviving statement is box 11 → Jordan

$6 + \underline{\quad} = 16 = 10$ · $5 + \underline{\quad} = 10 = 5$ · $6 + \underline{\quad} = 14 = 8$ · $9 + \underline{\quad} = 16 = 7$ · $10 + \underline{\quad} = 13 = 3$ · $3 + \underline{\quad} = 4 = 1$ · $1 + \underline{\quad} = 3 = 2$ · $4 + \underline{\quad} = 13 = 9$ · $8 + \underline{\quad} = 14 = 6$ · $3 + \underline{\quad} = 7 = 4$ · $8 + \underline{\quad} = 20 = 12$