



The Grand Arena Heist

Grade 7 math · Integers, Percentages, Order of operations, Exponents, Two-step equations · Reading level grades 5-6

Detective: _____ Date: _____

The golden championship trophy has vanished from the center of the Championship Dome! Both the basketball and soccer finals are paused. The only clue is a muddy trail leading across the court and onto the pitch.

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 the Game-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 TRICK	GEAR ITEM	SHOOTING STYLE	HEADBAND COLOR	DISTRACTION
Ronaldo	super-speed dribble	squeaky rubber sneakers	right handed shooter	red headband	loud referee whistles
Saka	unblockable fadeaway	high-tech smart watch	right handed shooter	red headband	loud referee whistles
Messi	super-speed dribble	squeaky rubber sneakers	right handed shooter	blue headband	loud referee whistles
Durant	gravity-defying leap	weighted wrist bands	right handed shooter	white headband	loud referee whistles
Mbappe	gravity-defying leap	neon green cleats	left handed shooter	white headband	squeaky dog toys
Giannis	gravity-defying leap	high-tech smart watch	left handed shooter	red headband	bright camera flashes
Luka	super-speed dribble	high-tech smart watch	left handed shooter	white headband	bright camera flashes
Son	unblockable fadeaway	gold championship ring	left handed shooter	blue headband	squeaky dog toys
Kane	curving bicycle kick	squeaky rubber sneakers	left handed shooter	red headband	squeaky dog toys
Haaland	super-speed dribble	weighted wrist bands	left handed shooter	blue headband	loud referee whistles
Steph	unblockable fadeaway	weighted wrist bands	right handed shooter	red headband	bright camera flashes
Rashford	no-look laser pass	neon green cleats	left handed shooter	white headband	bright camera flashes
Marta	unblockable fadeaway	high-tech smart watch	left handed shooter	red headband	loud referee whistles
Booker	curving bicycle kick	weighted wrist bands	left handed shooter	red headband	loud referee whistles
Butler	unblockable fadeaway	gold championship ring	right handed shooter	red headband	loud referee whistles
Morgan	unblockable fadeaway	gold championship ring	right handed shooter	blue headband	loud referee whistles
Tatum	no-look laser pass	neon green cleats	right handed shooter	red headband	loud referee whistles
Salah	curving bicycle kick	squeaky rubber sneakers	right handed shooter	red headband	loud referee whistles
Neymar	gravity-defying leap	high-tech smart watch	right handed shooter	blue headband	squeaky dog toys
Kerr	super-speed dribble	neon green cleats	right handed shooter	blue headband	loud referee whistles
Embiid	gravity-defying leap	high-tech smart watch	right handed shooter	white headband	loud referee whistles

CLUE 1 Integers

The scoreboard flickered with negative and positive yardage penalties after the thief escaped.

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

T						T													
11	6	19	29	25	26	11	3	6	19	22	27	26	3	10	29	26			
23	18	27	7	3	6	26	14	28	16	18	25	29	6	16	28	22	16	25	23

$6 - (-5) = \square \rightarrow \boxed{\text{T}}$

$(-2) + 8 = \square \rightarrow \boxed{\text{H}}$

$18 - (-7) = \square \rightarrow \boxed{\text{N}}$

$(-14) + 41 = \square \rightarrow \boxed{\text{L}}$

$(-6) + 35 = \square \rightarrow \boxed{\text{S}}$

$(-8) + 34 = \square \rightarrow \boxed{\text{A}}$

$16 - (-7) = \square \rightarrow \boxed{\text{G}}$

$5 - (-11) = \square \rightarrow \boxed{\text{I}}$

$19 - (-9) = \square \rightarrow \boxed{\text{P}}$

$(-12) + 30 = \square \rightarrow \boxed{\text{O}}$

$(-15) + 34 = \square \rightarrow \boxed{\text{E}}$

$19 - (-3) = \square \rightarrow \boxed{\text{R}}$

$(-7) + 17 = \square \rightarrow \boxed{\text{K}}$

$(-15) + 29 = \square \rightarrow \boxed{\text{M}}$

$(-1) + 8 = \square \rightarrow \boxed{\text{D}}$

$(-2) + 5 = \square \rightarrow \boxed{\text{C}}$

Scratch space:

CLUE 2 Percentages

We checked the security feed to analyze the shooting percentage of the running figure.

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

T									T				T	T			
59	11	58	1	23	1	12	58	17	59	1	11	21	59	59	11	58	
						T		T								T	
10	37	52	52	6	25	59	11	59	11	58	25	50	50	25	55	11	59
11	37	29	41														

$10\% \text{ of } 590 = \boxed{} \rightarrow \boxed{\text{T}}$

$40\% \text{ of } 15 = \boxed{} \rightarrow \boxed{\text{W}}$

$20\% \text{ of } 55 = \boxed{} \rightarrow \boxed{\text{H}}$

$20\% \text{ of } 115 = \boxed{} \rightarrow \boxed{\text{U}}$

$50\% \text{ of } 34 = \boxed{} \rightarrow \boxed{\text{C}}$

$10\% \text{ of } 500 = \boxed{} \rightarrow \boxed{\text{R}}$

$40\% \text{ of } 130 = \boxed{} \rightarrow \boxed{\text{L}}$

$25\% \text{ of } 4 = \boxed{} \rightarrow \boxed{\text{S}}$

$25\% \text{ of } 164 = \boxed{} \rightarrow \boxed{\text{D}}$

$10\% \text{ of } 550 = \boxed{} \rightarrow \boxed{\text{G}}$

$25\% \text{ of } 40 = \boxed{} \rightarrow \boxed{\text{B}}$

$50\% \text{ of } 42 = \boxed{} \rightarrow \boxed{\text{O}}$

$10\% \text{ of } 370 = \boxed{} \rightarrow \boxed{\text{A}}$

$20\% \text{ of } 290 = \boxed{} \rightarrow \boxed{\text{E}}$

$50\% \text{ of } 50 = \boxed{} \rightarrow \boxed{\text{I}}$

$25\% \text{ of } 48 = \boxed{} \rightarrow \boxed{\text{P}}$

$5\% \text{ of } 580 = \boxed{} \rightarrow \boxed{\text{N}}$

Scratch space:

CLUE 3

Order of operations

The coach wrote a complex equation of dribbling drills on the dry-erase board to find the next clue.

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

A														
35	26	110	44	60	16	28	9	21	65	108	64	38	26	28

64	38	110	6	6	28	60	38	65	28	93	111	110	26	60

$29 + 2 \times 3 = \square \rightarrow \text{A}$

$10 \times 7 - 5 = \square \rightarrow \text{H}$

$7 \times 11 - 17 = \square \rightarrow \text{D}$

$4 \times 8 - 4 = \square \rightarrow \text{E}$

$2 + 2 \times 2 = \square \rightarrow \text{P}$

$68 + 6 \times 7 = \square \rightarrow \text{O}$

$8 \times 5 - 19 = \square \rightarrow \text{W}$

$51 + 7 \times 6 = \square \rightarrow \text{M}$

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

$3 + 5 \times 7 = \square \rightarrow \text{T}$

$12 \times 4 - 4 = \square \rightarrow \text{U}$

$48 + 4 \times 4 = \square \rightarrow \text{S}$

$1 + 4 \times 2 = \square \rightarrow \text{F}$

$4 \times 7 - 2 = \square \rightarrow \text{L}$

$97 + 7 \times 2 = \square \rightarrow \text{C}$

$90 + 2 \times 9 = \square \rightarrow \text{I}$

Scratch space:

CLUE 4

Exponents

The crowd noise doubled every second during the getaway, growing to a huge power.

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

W																		
361	400	100	225	8	9	32	49	64	400	32	16	400	49	32	324	49	9	32
289	81	64	49	243	49	81	81	16	400	9	400	81						

$19^2 = \square \rightarrow \boxed{W}$

$18^2 = \square \rightarrow \boxed{B}$

$2^5 = \square \rightarrow \boxed{D}$

$3^4 = \square \rightarrow \boxed{T}$

$15^2 = \square \rightarrow \boxed{O}$

$10^2 = \square \rightarrow \boxed{F}$

$2^3 = \square \rightarrow \boxed{U}$

$3^5 = \square \rightarrow \boxed{P}$

$3^2 = \square \rightarrow \boxed{N}$

$20^2 = \square \rightarrow \boxed{E}$

$7^2 = \square \rightarrow \boxed{A}$

$17^2 = \square \rightarrow \boxed{S}$

$8^2 = \square \rightarrow \boxed{R}$

$4^2 = \square \rightarrow \boxed{H}$

Scratch space:

CLUE 5**Two-step equations - the last clue**

We had to solve for the missing team jersey count to unlock the stadium vault.

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:

$6x + 5 = 23, x = \boxed{}$

$4x + 4 = 28, x = \boxed{}$

$3x + 6 = 27, x = \boxed{}$

$2x + 11 = 29, x = \boxed{}$

$2x + 10 = 14, x = \boxed{}$

$5x + 5 = 25, x = \boxed{}$

$6x + 12 = 18, x = \boxed{}$

$3x + 10 = 25, x = \boxed{}$

$3x + 7 = 40, x = \boxed{}$

$5x + 1 = 41, x = \boxed{}$

$3x + 2 = 38, x = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain makes a gravity-defying leap, then taps their high-tech smart watch.
2. The villain throws a no-look laser pass, then scuffs their squeaky rubber sneakers.
3. The villain blasts a curving bicycle kick, then scuffs their squeaky rubber sneakers.
4. The villain blasts a curving bicycle kick, then tightens their weighted wrist bands.
5. The villain performs a super-speed dribble, then tightens their weighted wrist bands.
6. The villain performs a super-speed dribble, then scuffs their squeaky rubber sneakers.
7. The villain throws a no-look laser pass, then flashes their neon green cleats.
8. The villain throws a no-look laser pass, then polishes their gold championship ring.
9. The villain sinks an unblockable fadeaway, then scuffs their squeaky rubber sneakers.
10. The villain sinks an unblockable fadeaway, then taps their high-tech smart watch.
11. The villain sinks an unblockable fadeaway, then tightens their weighted wrist bands.
12. The villain sinks an unblockable fadeaway, then flashes their neon green cleats.

Answer Key

The Grand Arena Heist

Culprit: Saka

unblockable fadeaway · high-tech smart watch · right handed shooter · red headband · loud referee whistles

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Integers): "THE SNATCHER LACKS A GOLD CHAMPIONSHIP RING"

$6 - (-5) = 11$ (T) · $(-2) + 8 = 6$ (H) · $18 - (-7) = 25$ (N) · $(-14) + 41 = 27$ (L) · $(-6) + 35 = 29$ (S) · $(-8) + 34 = 26$ (A) · $16 - (-7) = 23$ (G) · $5 - (-11) = 16$ (I) · $19 - (-9) = 28$ (P) · $(-12) + 30 = 18$ (O) · $(-15) + 34 = 19$ (E) · $19 - (-3) = 22$ (R) · $(-7) + 17 = 10$ (K) · $(-15) + 29 = 14$ (M) · $(-1) + 8 = 7$ (D) · $(-2) + 5 = 3$ (C)

Clue 2 (Percentages): "THE SUSPECT SHOT THE BALL WITH THEIR RIGHT HAND"

10% of 590 = 59 (T) · 40% of 15 = 6 (W) · 20% of 55 = 11 (H) · 20% of 115 = 23 (U) · 50% of 34 = 17 (C) · 10% of 500 = 50 (R) · 40% of 130 = 52 (L) · 25% of 4 = 1 (S) · 25% of 164 = 41 (D) · 10% of 550 = 55 (G) · 25% of 40 = 10 (B) · 50% of 42 = 21 (O) · 10% of 370 = 37 (A) · 20% of 290 = 58 (E) · 50% of 50 = 25 (I) · 25% of 48 = 12 (P) · 5% of 580 = 29 (N)

Clue 3 (Order of operations): "A LOUD REF WHISTLE STOPPED THEM COLD"

$29 + 2 \times 3 = 35$ (A) · $10 \times 7 - 5 = 65$ (H) · $7 \times 11 - 17 = 60$ (D) · $4 \times 8 - 4 = 28$ (E) · $2 + 2 \times 2 = 6$ (P) · $68 + 6 \times 7 = 110$ (O) · $8 \times 5 - 19 = 21$ (W) · $51 + 7 \times 6 = 93$ (M) · $2 + 7 \times 2 = 16$ (R) · $3 + 5 \times 7 = 38$ (T) · $12 \times 4 - 4 = 44$ (U) · $48 + 4 \times 4 = 64$ (S) · $1 + 4 \times 2 = 9$ (F) · $4 \times 7 - 2 = 26$ (L) · $97 + 7 \times 2 = 111$ (C) · $90 + 2 \times 9 = 108$ (I)

Clue 4 (Exponents): "WE FOUND A RED HEADBAND STRAP AT THE NET"

$19^{\wedge}2 = 361$ (W) · $18^{\wedge}2 = 324$ (B) · $2^{\wedge}5 = 32$ (D) · $3^{\wedge}4 = 81$ (T) · $15^{\wedge}2 = 225$ (O) · $10^{\wedge}2 = 100$ (F) · $2^{\wedge}3 = 8$ (U) · $3^{\wedge}5 = 243$ (P) · $3^{\wedge}2 = 9$ (N) · $20^{\wedge}2 = 400$ (E) · $7^{\wedge}2 = 49$ (A) · $17^{\wedge}2 = 289$ (S) · $8^{\wedge}2 = 64$ (R) · $4^{\wedge}2 = 16$ (H)

Clue 5 (Two-step equations): surviving statement is box 10 → Saka

$6x + 5 = 23, x = 3$ · $4x + 4 = 28, x = 6$ · $3x + 6 = 27, x = 7$ · $2x + 11 = 29, x = 9$ · $2x + 10 = 14, x = 2$ · $5x + 5 = 25, x = 4$ · $6x + 12 = 18, x = 1$ · $3x + 10 = 25, x = 5$ · $3x + 7 = 40, x = 11$ · $5x + 1 = 41, x = 8$ · $3x + 2 = 38, x = 12$