



The Abrams Tank Rescue

Grade 5 math · Subtraction, Addition, Multiplication, Fractions of a number · Reading level grades 5-6

Detective: _____ **Date:** _____

Chief Joshua Dax Zeno needs your help! A rogue operative has taken an M1 Abrams tank and a junior cadet. We must track down the culprit before they reach the state line. Search for clues, do the math, and save the cadet!

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 rogue operative is _____

Possible suspects

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

NAME	MAIN TECH	AUXILIARY GEAR	STEERING STYLE	HAIR STYLE	TARGET WEAKNESS
Cadet R Brooks	smoke screen	laser sights	left handed	mohawk	bright lights
Ranger C Blake	armor plating	laser sights	right handed	shaved head	bright lights
Officer A Vance	armor plating	radio scanner	left handed	buzz cut	loud alarms
Sgt J Miller	armor plating	decoy flares	right handed	mohawk	bright lights
Captain Knox	smoke screen	decoy flares	left handed	buzz cut	bright lights
Sgt H Hayes	thermal goggles	turbo booster	right handed	shaved head	loud alarms
Captain R Flint	smoke screen	radio scanner	left handed	shaved head	muddy roads
Agent P Pierce	night vision	drone control	right handed	buzz cut	loud alarms
Agent J Shaw	radar jammer	radio scanner	right handed	mohawk	loud alarms
Major V Payne	radar jammer	turbo booster	left handed	mohawk	muddy roads
Specialist K Reed	armor plating	turbo booster	right handed	buzz cut	loud alarms
Specialist D West	night vision	decoy flares	left handed	mohawk	loud alarms
Cadet F Hunter	thermal goggles	decoy flares	right handed	buzz cut	loud alarms
Corporal M Vance	smoke screen	turbo booster	left handed	buzz cut	loud alarms
Corporal J Cruz	night vision	drone control	left handed	mohawk	bright lights
Agent B Cooper	smoke screen	drone control	right handed	buzz cut	bright lights
Sgt B Rollins	radar jammer	laser sights	right handed	buzz cut	loud alarms
Lt E Morgan	night vision	radio scanner	right handed	mohawk	loud alarms
Ranger T Stone	night vision	drone control	right handed	mohawk	bright lights
Lt G Riggs	radar jammer	drone control	right handed	buzz cut	loud alarms
Officer M Gibbs	night vision	laser sights	right handed	shaved head	loud alarms

CLUE 1

Chief Joshua Dax Zeno checks the inventory at the motor pool. Several M1 Abrams parts are missing from the storage crates, but subtracting the remaining parts reveals a crucial pattern.

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



 6536 1391 3493 8132 2776 6236 3759 6408 1651 6536 5506 5211 3493 5654 8228 5211 6536



 2776 5654 3493 3176 6536 2776 6408 5718 5211 5718 5211 5211 5654 6536 3493 6408

10397 - 3861 = → **T**

$9608 - 4397 = \square \rightarrow \boxed{\text{O}}$

$$4326 - 2935 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$8986 - 758 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$6243 - 589 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$5706 - 2213 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$10413 - 4177 = \boxed{} \rightarrow \boxed{\text{L}}$$

$9997 - 1865 = \boxed{} \rightarrow \boxed{\text{C}}$

$$7408 - 3649 = \boxed{} \rightarrow \boxed{\text{P}}$$

$4051 - 875 = \square \rightarrow \boxed{\mathbf{A}}$

$$6430 - 924 = \boxed{} \rightarrow \boxed{\text{D}}$$

$9503 - 3785 = \boxed{} \rightarrow \boxed{\text{B}}$

$$9850 - 3442 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$7675 - 4899 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$2237 - 586 = \boxed{} \rightarrow \boxed{\text{I}}$$

Scratch space:

CLUE 2 Addition

Task Force Abrams scouts count the tire tracks leading out of the base. Adding the number of tracks from the north gate to those at the south gate points toward a specific getaway path.

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

T														
2230	8933	9368	5652	2463	5652	2962	9368	8941	2230	2463	5652	9368	6277	5366

2942	5676	3943	8933	2230	8933	5366	4744	6277	9368	6277	3943	2942	5676	2962

$1215 + 1015 = \square \rightarrow \text{T}$

$1275 + 1188 = \square \rightarrow \text{U}$

$2167 + 4110 = \square \rightarrow \text{D}$

$5727 + 3214 = \square \rightarrow \text{C}$

$3082 + 5851 = \square \rightarrow \text{H}$

$1930 + 1032 = \square \rightarrow \text{P}$

$2057 + 1886 = \square \rightarrow \text{G}$

$1403 + 1539 = \square \rightarrow \text{R}$

$2268 + 3384 = \square \rightarrow \text{S}$

$1578 + 3166 = \square \rightarrow \text{N}$

$2760 + 2916 = \square \rightarrow \text{I}$

$2186 + 3180 = \square \rightarrow \text{A}$

$5470 + 3898 = \square \rightarrow \text{E}$

Scratch space:

CLUE 3

Multiplication facts (1-12)

Our drones spot several storage buildings near the valley. If each building holds a set number of emergency crates, multiplying the rows gives us the total gear count of the suspect.

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

T																			
121	20	90	2	64	7	90	55	64	120	144	88	121	20	90	7	144	28	55	
27	7	27	120	88	24														

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

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

$12 \times 12 = \square \rightarrow \boxed{\text{O}}$

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

$7 \times 4 = \square \rightarrow \boxed{\text{U}}$

$11 \times 5 = \square \rightarrow \boxed{\text{D}}$

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

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

$2 \times 10 = \square \rightarrow \boxed{\text{H}}$

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

$9 \times 10 = \square \rightarrow \boxed{\text{E}}$

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

$1 \times 7 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

CLUE 4

Fractions of a number

A witness found a discarded equipment bag nearby. Only a small fraction of the tools inside belong to the base, which helps us calculate the exact equipment weight of the culprit.

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

W																	
21	24	36	31	17	15	25	27	17	40	40	5	17	19	2	23	35	6

5	18	35	34	34	35	15	13	32

$2/10 \text{ of } 105 = \square \rightarrow \boxed{\text{W}}$

$1/4 \text{ of } 100 = \square \rightarrow \boxed{\text{D}}$

$2/8 \text{ of } 76 = \square \rightarrow \boxed{\text{T}}$

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

$1/5 \text{ of } 10 = \square \rightarrow \boxed{\text{H}}$

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

$2/4 \text{ of } 36 = \square \rightarrow \boxed{\text{L}}$

$2/10 \text{ of } 155 = \square \rightarrow \boxed{\text{O}}$

$5/10 \text{ of } 34 = \square \rightarrow \boxed{\text{U}}$

$3/4 \text{ of } 8 = \square \rightarrow \boxed{\text{R}}$

$1/2 \text{ of } 54 = \square \rightarrow \boxed{\text{B}}$

$1/8 \text{ of } 120 = \square \rightarrow \boxed{\text{N}}$

$1/2 \text{ of } 26 = \square \rightarrow \boxed{\text{G}}$

$1/3 \text{ of } 96 = \square \rightarrow \boxed{\text{S}}$

$7/10 \text{ of } 50 = \square \rightarrow \boxed{\text{I}}$

$2/6 \text{ of } 72 = \square \rightarrow \boxed{\text{E}}$

$6/8 \text{ of } 48 = \square \rightarrow \boxed{\text{F}}$

$5/10 \text{ of } 68 = \square \rightarrow \boxed{\text{P}}$

$5/10 \text{ of } 46 = \square \rightarrow \boxed{\text{A}}$

Scratch space:

CLUE 5**Fractions of a number - the last clue**

We analyze the fuel usage of the runaway tank. Calculating what fraction of the full tank has been burned tells us exactly how far into the pine forest the rogue driver could have traveled.

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:

$1/3 \text{ of } 6 = \boxed{}$

$4/8 \text{ of } 20 = \boxed{}$

$1/10 \text{ of } 30 = \boxed{}$

$2/4 \text{ of } 22 = \boxed{}$

$1/10 \text{ of } 90 = \boxed{}$

$4/5 \text{ of } 15 = \boxed{}$

$4/10 \text{ of } 15 = \boxed{}$

$4/8 \text{ of } 14 = \boxed{}$

$3/6 \text{ of } 16 = \boxed{}$

$4/8 \text{ of } 10 = \boxed{}$

$4/8 \text{ of } 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain activated thermal goggles, then released the decoy flares.
2. The villain turned on the radar jammer, then aimed with laser sights.
3. The villain turned on the radar jammer, then launched the drone control.
4. The villain reinforced the armor plating, then listened to the radio scanner.
5. The villain deployed a thick smoke screen, then engaged the turbo booster.
6. The villain switched to night vision, then aimed with laser sights.
7. The villain reinforced the armor plating, then engaged the turbo booster.
8. The villain activated thermal goggles, then engaged the turbo booster.
9. The villain activated thermal goggles, then aimed with laser sights.
10. The villain switched to night vision, then launched the drone control.
11. The villain switched to night vision, then released the decoy flares.
12. The villain reinforced the armor plating, then launched the drone control.

Answer Key

The Abrams Tank Rescue

Culprit: Cadet F Hunter

thermal goggles · decoy flares · right handed · buzz cut · loud alarms

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE CULPRIT DOES NOT USE A TURBO BOOSTER"

$10397 - 3861 = 6536$ (T) · $9608 - 4397 = 5211$ (O) · $4326 - 2935 = 1391$ (H) · $8986 - 758 = 8228$ (N) · $6243 - 589 = 5654$ (S) · $5706 - 2213 = 3493$ (E) · $10413 - 4177 = 6236$ (L) · $9997 - 1865 = 8132$ (C) · $7408 - 3649 = 3759$ (P) · $4051 - 875 = 3176$ (A) · $6430 - 924 = 5506$ (D) · $9503 - 3785 = 5718$ (B) · $9850 - 3442 = 6408$ (R) · $7675 - 4899 = 2776$ (U) · $2237 - 586 = 1651$ (I)

Clue 2 (Addition): "THE SUSPECT USED A RIGHT HANDED GRIP"

$1215 + 1015 = 2230$ (T) · $1275 + 1188 = 2463$ (U) · $2167 + 4110 = 6277$ (D) · $5727 + 3214 = 8941$ (C) · $3082 + 5851 = 8933$ (H) · $1930 + 1032 = 2962$ (P) · $2057 + 1886 = 3943$ (G) · $1403 + 1539 = 2942$ (R) · $2268 + 3384 = 5652$ (S) · $1578 + 3166 = 4744$ (N) · $2760 + 2916 = 5676$ (I) · $2186 + 3180 = 5366$ (A) · $5470 + 3898 = 9368$ (E)

Clue 3 (Multiplication facts (1-12)): "THEY FLED FROM THE LOUD ALARMS"

$11 \times 11 = 121$ (T) · $11 \times 8 = 88$ (M) · $12 \times 12 = 144$ (O) · $8 \times 8 = 64$ (F) · $7 \times 4 = 28$ (U) · $11 \times 5 = 55$ (D) · $10 \times 12 = 120$ (R) · $9 \times 3 = 27$ (A) · $2 \times 10 = 20$ (H) · $2 \times 1 = 2$ (Y) · $9 \times 10 = 90$ (E) · $3 \times 8 = 24$ (S) · $1 \times 7 = 7$ (L)

Clue 4 (Fractions of a number): "WE FOUND BUZZ CUT HAIR CLIPPINGS"

$2/10$ of 105 = 21 (W) · $1/4$ of 100 = 25 (D) · $2/8$ of 76 = 19 (T) · $8/10$ of 50 = 40 (Z) · $1/5$ of 10 = 2 (H) · $1/3$ of 15 = 5 (C) · $2/4$ of 36 = 18 (L) · $2/10$ of 155 = 31 (O) · $5/10$ of 34 = 17 (U) · $3/4$ of 8 = 6 (R) · $1/2$ of 54 = 27 (B) · $1/8$ of 120 = 15 (N) · $1/2$ of 26 = 13 (G) · $1/3$ of 96 = 32 (S) · $7/10$ of 50 = 35 (I) · $2/6$ of 72 = 24 (E) · $6/8$ of 48 = 36 (F) · $5/10$ of 68 = 34 (P) · $5/10$ of 46 = 23 (A)

Clue 5 (Fractions of a number): surviving statement is box 1 → Cadet F Hunter

$1/3$ of 6 = 2 · $4/8$ of 20 = 10 · $1/10$ of 30 = 3 · $2/4$ of 22 = 11 · $1/10$ of 90 = 9 · $4/5$ of 15 = 12 · $4/10$ of 15 = 6 · $4/8$ of 14 = 7 · $3/6$ of 16 = 8 · $4/8$ of 10 = 5 · $4/8$ of 8 = 4