The Mystery of the Diamond Anchor

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

Detective: _____ **Date:** _____

Someone snuck into the blocky shipyard and swiped the golden spyglass. Use your detective skills to crack the math clues and uncover the pirate thief.

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 Sea Rogue is _____

Possible suspects

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

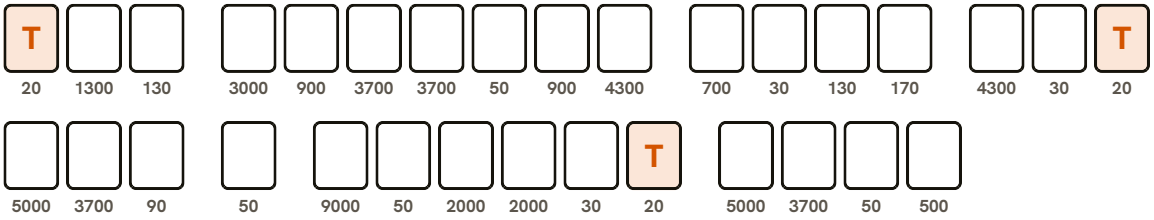
NAME	SPECIAL GEAR	SHIP FLAG	DOMINANT HAND	BANDANA COLOR	FEAR
William Kidd	Diamond Sword	Kraken Flag	Right Handed	Obsidian Black	Splash Potion
Henry Morgan	Redstone Compass	Kraken Flag	Left Handed	Obsidian Black	Splash Potion
Samuel Bellamy	Enchanted Bow	Kraken Flag	Right Handed	Crimson Red	Bucket of Water
Israel Hands	Spyglass Cannon	Kraken Flag	Right Handed	Crimson Red	Bucket of Water
Captain Blackbeard	Redstone Compass	Anchor Flag	Left Handed	Crimson Red	Splash Potion
Stede Bonnet	Redstone Compass	Anchor Flag	Right Handed	Emerald Green	Iron Golem
Charles Vane	Diamond Sword	Kraken Flag	Right Handed	Obsidian Black	Iron Golem
Zheng Yi Sao	Diamond Sword	Skull Flag	Right Handed	Obsidian Black	Splash Potion
John Rackham	Redstone Compass	Anchor Flag	Left Handed	Obsidian Black	Iron Golem
Edward England	Diamond Sword	Parrot Flag	Left Handed	Obsidian Black	Splash Potion
Francois L Olonnais	Diamond Sword	Creeper Flag	Left Handed	Obsidian Black	Splash Potion
Anne Bonny	Diamond Sword	Creeper Flag	Left Handed	Obsidian Black	Bucket of Water
Jean Lafitte	TNT Barrel	Creeper Flag	Left Handed	Crimson Red	Iron Golem
Ned Low	Diamond Sword	Creeper Flag	Right Handed	Obsidian Black	Bucket of Water
Bartholomew Roberts	TNT Barrel	Skull Flag	Left Handed	Crimson Red	Splash Potion
Woodes Rogers	Enchanted Bow	Anchor Flag	Left Handed	Obsidian Black	Splash Potion
Black Caesar	TNT Barrel	Creeper Flag	Left Handed	Obsidian Black	Bucket of Water
Mary Read	TNT Barrel	Anchor Flag	Left Handed	Obsidian Black	Bucket of Water
George Lowther	Enchanted Bow	Creeper Flag	Right Handed	Crimson Red	Splash Potion
Calico Jack	TNT Barrel	Creeper Flag	Left Handed	Obsidian Black	Splash Potion
Thomas Tew	Diamond Sword	Creeper Flag	Right Handed	Crimson Red	Iron Golem

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CLUE 1 Rounding

The lookout spyglass only shows rounded distance estimates on the naval scope.

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



Round 24 to the nearest ten ☐ → **T**

Round 4,303 to the nearest hundred ☐ → **N**

Round 923 to the nearest hundred ☐ → **I**

Round 3,725 to the nearest hundred ☐ → **L**

Round 33 to the nearest ten ☐ → **O**

Round 1,847 to the nearest thousand ☐ → **R**

Round 170 to the nearest ten ☐ → **S**

Round 8,712 to the nearest thousand ☐ → **P**

Round 90 to the nearest ten ☐ → **Y**

Round 132 to the nearest ten ☐ → **E**

Round 1,341 to the nearest hundred ☐ → **H**

Round 737 to the nearest hundred ☐ → **D**

Round 4,918 to the nearest thousand ☐ → **F**

Round 2,774 to the nearest thousand ☐ → **V**

Round 48 to the nearest ten ☐ → **A**

Round 480 to the nearest hundred ☐ → **G**

Scratch space:

CLUE 2 Addition

> The quartermaster tallied up all the extra wooden planks stored in the cargo hold.

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



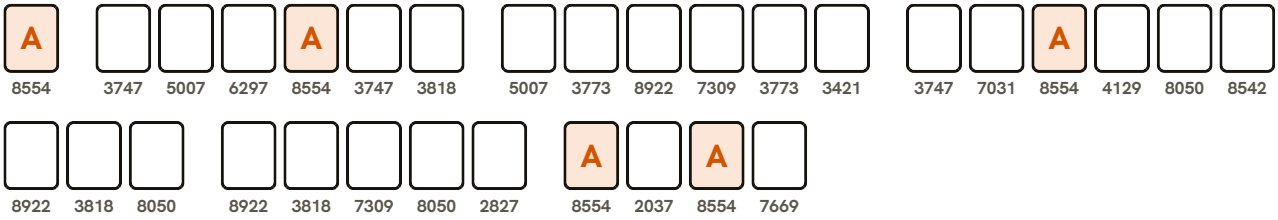
4872 + 2814 = ☐ → T	1765 + 3147 = ☐ → H	2133 + 4350 = ☐ → I
3763 + 3493 = ☐ → R	3569 + 1558 = ☐ → N	3511 + 5498 = ☐ → D
3981 + 4448 = ☐ → A	4192 + 4969 = ☐ → L	2922 + 4167 = ☐ → P
2550 + 3676 = ☐ → F	1246 + 1873 = ☐ → E	2139 + 4724 = ☐ → M

Scratch space:

CLUE 3 Subtraction

The navigator calculated how many iron ingots were missing from the chest.

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



10206 - 1652 = ☐ → A

13604 - 4682 = ☐ → T

4712 - 1885 = ☐ → F

7940 - 4167 = ☐ → O

5645 - 1898 = ☐ → S

6110 - 1981 = ☐ → R

11336 - 4305 = ☐ → C

9067 - 1398 = ☐ → Y

6452 - 3031 = ☐ → N

8256 - 4438 = ☐ → H

3911 - 1874 = ☐ → W

10759 - 2709 = ☐ → E

10787 - 4490 = ☐ → L

10546 - 2004 = ☐ → D

8972 - 1663 = ☐ → I

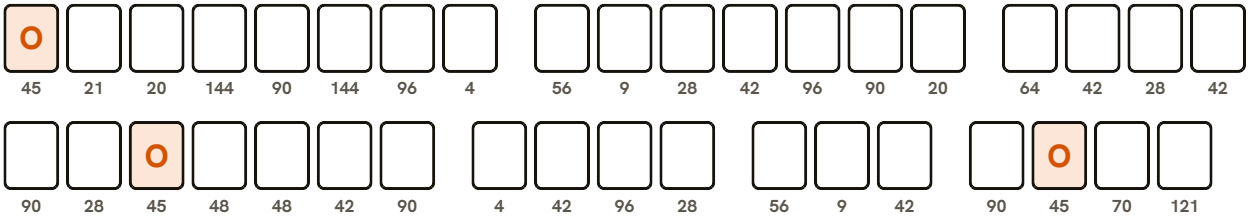
6847 - 1840 = ☐ → P

Scratch space:

CLUE 4 Multiplication facts (1-12)

> The shipwright counted equal rows of obsidian blocks stacked along the dock.

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



5 × 9 = ☐ → O

8 × 12 = ☐ → A

10 × 2 = ☐ → S

11 × 11 = ☐ → K

7 × 8 = ☐ → T

3 × 3 = ☐ → H

12 × 12 = ☐ → I

10 × 7 = ☐ → C

4 × 7 = ☐ → R

6 × 7 = ☐ → E

1 × 4 = ☐ → N

3 × 7 = ☐ → B

9 × 10 = ☐ → D

8 × 6 = ☐ → P

8 × 8 = ☐ → W

Scratch space:

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

> The captain divided the recovered emerald loot equally among the crew.

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:

30 ÷ 3 = ☐	32 ÷ 8 = ☐	10 ÷ 2 = ☐	14 ÷ 7 = ☐	35 ÷ 5 = ☐
72 ÷ 12 = ☐	66 ÷ 6 = ☐	54 ÷ 6 = ☐	5 ÷ 5 = ☐	24 ÷ 3 = ☐
9 ÷ 3 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain crafted a heavy diamond sword, then waved a giant kraken flag.
2. The villain fired a spyglass cannon, then raised a green creeper flag.
3. The villain aimed an enchanted bow, then hoisted a spooky skull flag.
4. The villain aimed an enchanted bow, then unfurled a heavy anchor flag.
5. The villain crafted a heavy diamond sword, then raised a green creeper flag.
6. The villain aimed an enchanted bow, then waved a giant kraken flag.
7. The villain lit a hidden tnt barrel, then unfurled a heavy anchor flag.
8. The villain lit a hidden tnt barrel, then flew a bright parrot flag.
9. The villain fired a spyglass cannon, then unfurled a heavy anchor flag.
10. The villain set a tricky redstone compass, then waved a giant kraken flag.
11. The villain set a tricky redstone compass, then flew a bright parrot flag.
12. The villain lit a hidden tnt barrel, then raised a green creeper flag.

TEACHER / PARENT

Answer Key

The Mystery of the Diamond Anchor

Culprit: Calico Jack

TNT Barrel · Creeper Flag · Left Handed · Obsidian Black · Splash Potion

Trail: Start 21 → Clue 1 20 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT FLY A PARROT FLAG"

Round 24 to the nearest ten = 20 (T) · Round 4,303 to the nearest hundred = 4300 (N) · Round 923 to the nearest hundred = 900 (I) · Round 3,725 to the nearest hundred = 3700 (L) · Round 33 to the nearest ten = 30 (O) · Round 1,847 to the nearest thousand = 2000 (R) · Round 170 to the nearest ten = 170 (S) · Round 8,712 to the nearest thousand = 9000 (P) · Round 90 to the nearest ten = 90 (Y) · Round 132 to the nearest ten = 130 (E) · Round 1,341 to the nearest hundred = 1300 (H) · Round 737 to the nearest hundred = 700 (D) · Round 4,918 to the nearest thousand = 5000 (F) · Round 2,774 to the nearest thousand = 3000 (V) · Round 48 to the nearest ten = 50 (A) · Round 480 to the nearest hundred = 500 (G)

Clue 2 (Addition): "THE THIEF HELD THE MAP IN THEIR LEFT HAND"

4872 + 2814 = 7686 (T) · 1765 + 3147 = 4912 (H) · 2133 + 4350 = 6483 (I) · 3763 + 3493 = 7256 (R) · 3569 + 1558 = 5127 (N) · 3511 + 5498 = 9009 (D) · 3981 + 4448 = 8429 (A) · 4192 + 4969 = 9161 (L) · 2922 + 4167 = 7089 (P) · 2550 + 3676 = 6226 (F) · 1246 + 1873 = 3119 (E) · 2139 + 4724 = 6863 (M)

Clue 3 (Subtraction): "A SPLASH POTION SCARED THE THIEF AWAY"

10206 - 1652 = 8554 (A) · 13604 - 4682 = 8922 (T) · 4712 - 1885 = 2827 (F) · 7940 - 4167 = 3773 (O) · 5645 - 1898 = 3747 (S) · 6110 - 1981 = 4129 (R) · 11336 - 4305 = 7031 (C) · 9067 - 1398 = 7669 (Y) · 6452 - 3031 = 3421 (N) · 8256 - 4438 = 3818 (H) · 3911 - 1874 = 2037 (W) · 10759 - 2709 = 8050 (E) · 10787 - 4490 = 6297 (L) · 10546 - 2004 = 8542 (D) · 8972 - 1663 = 7309 (I) · 6847 - 1840 = 5007 (P)

Clue 4 (Multiplication facts (1-12)): "OBSIDIAN THREADS WERE DROPPED NEAR THE DOCK"

5 × 9 = 45 (O) · 8 × 12 = 96 (A) · 10 × 2 = 20 (S) · 11 × 11 = 121 (K) · 7 × 8 = 56 (T) · 3 × 3 = 9 (H) · 12 × 12 = 144 (I) · 10 × 7 = 70 (C) · 4 × 7 = 28 (R) · 6 × 7 = 42 (E) · 1 × 4 = 4 (N) · 3 × 7 = 21 (B) · 9 × 10 = 90 (D) · 8 × 6 = 48 (P) · 8 × 8 = 64 (W)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Calico Jack

30 ÷ 3 = 10 · 32 ÷ 8 = 4 · 10 ÷ 2 = 5 · 14 ÷ 7 = 2 · 35 ÷ 5 = 7 · 72 ÷ 12 = 6 · 66 ÷ 6 = 11 · 54 ÷ 6 = 9 · 5 ÷ 5 = 1 · 24 ÷ 3 = 8 · 9 ÷ 3 = 3