



The Mystery of the Jurassic Corsair

Grade 7 math · Place value, Subtraction, Addition, Fractions of a number · Reading level grades 7-9

Detective: _____ Date: _____

A rogue buccaneer mounted on a armored prehistoric beast raided the harbor vault and escaped into the jungle mist. Clues left across the dockyard will reveal the culprit.

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 Dino Raider is _____

Possible suspects

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

NAME	MOUNT ABILITY	PIRATE GEAR	DOMINANT HAND	HAIRSTYLE	REPELLENT
Woodes Rogers	Pterodactyl Flight	Golden Compass	Left-handed	Crimson Dreadlocks	Stinky Kelp
Howell Davis	Spinosaurus Swim	Smoke Bomb	Left-handed	Crimson Dreadlocks	Loud Whistles
George Lowther	TRex Strength	Cursed Cutlass	Left-handed	Sandy Blonde Locks	Stinky Kelp
John Coxon	TRex Strength	Brass Spyglass	Right-handed	Black Braids	Loud Whistles
Mary Read	TRex Strength	Cursed Cutlass	Left-handed	Crimson Dreadlocks	Stinky Kelp
Alexander Exquemelin	Triceratops Armor	Flintlock Blaster	Right-handed	Black Braids	Bright Flares
Zheng Yi Sao	Raptor Speed	Brass Spyglass	Left-handed	Black Braids	Bright Flares
Charles Vane	Pterodactyl Flight	Brass Spyglass	Left-handed	Sandy Blonde Locks	Loud Whistles
William Fly	Pterodactyl Flight	Flintlock Blaster	Left-handed	Sandy Blonde Locks	Loud Whistles
Charlotte de Berry	Triceratops Armor	Golden Compass	Left-handed	Black Braids	Loud Whistles
Samuel Bellamy	Spinosaurus Swim	Brass Spyglass	Left-handed	Sandy Blonde Locks	Loud Whistles
Ned Low	Triceratops Armor	Smoke Bomb	Right-handed	Sandy Blonde Locks	Bright Flares
William Kidd	Triceratops Armor	Flintlock Blaster	Left-handed	Black Braids	Stinky Kelp
Jack Rackham	Raptor Speed	Brass Spyglass	Left-handed	Sandy Blonde Locks	Stinky Kelp
Edward England	Spinosaurus Swim	Golden Compass	Right-handed	Sandy Blonde Locks	Loud Whistles
Stede Bonnet	TRex Strength	Golden Compass	Left-handed	Sandy Blonde Locks	Loud Whistles
Blackbeard Teach	Triceratops Armor	Cursed Cutlass	Left-handed	Sandy Blonde Locks	Loud Whistles
Grace O Malley	Pterodactyl Flight	Golden Compass	Right-handed	Black Braids	Stinky Kelp
Thomas Tew	TRex Strength	Cursed Cutlass	Left-handed	Crimson Dreadlocks	Loud Whistles
Bartholomew Roberts	TRex Strength	Cursed Cutlass	Right-handed	Crimson Dreadlocks	Loud Whistles
Anne Bonny	Spinosaurus Swim	Smoke Bomb	Right-handed	Black Braids	Stinky Kelp

CLUE 1

The harbor guard logged the vault security code on a ledger, but the digits were shifted across place values.

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

Diagram illustrating the distribution of 8000 units across 100 and 900 units in two rows. The top row shows 8000 units in 100 units, and the bottom row shows 8000 units in 900 units. The total is 8000 units.

What is the value of the 8 in 18,551?



What is the value of the 9 in 54,962?

A diagram showing a transition from an empty box to a box containing the letter E. The first box is empty, followed by a right-pointing arrow, and then a second box containing the letter 'E'.

What is the value of the 7 in 55,175?

A diagram showing a box with a right arrow pointing to a box containing the number 0.

What is the value of the 6 in 516,731?

? → **C**

What is the value of the 1 in 98,102?

A diagram illustrating a transition. On the left is an empty rounded rectangle. An arrow points to the right, where there is a rounded rectangle containing the letter 'H'.

What is the value of the 7 in 960,742?

? → **U**

What is the value of the 5 in 65,993?

A diagram showing a box with a question mark pointing to a box with the letter P.

What is the value of the 6 in 43,693?



What is the value of the 7 in 87,860?

A diagram illustrating a transformation. On the left is a simple rectangular box. An arrow points from this box to another rectangular box on the right. Inside the second box is the letter 'L'.

What is the value of the 1 in 41,383?

A diagram illustrating a transition. On the left is an empty rounded rectangle. An arrow points from this rectangle to another rounded rectangle on the right, which contains the letter 'S'.

What is the value of the 8 in 77,282?



Diagram illustrating a transformation or mapping from an empty box to a box labeled **A**.

What is the value of the 2 in 469,265?

? → **N**

What is the value of the 8 in 693,800?

? → **D**

Scratch space:

CLUE 2
Subtraction

The quartermaster subtracted the stolen crates from the dock manifests to pinpoint where the saboteur struck.

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

A						A										
2949	3928	6496	7902	3252	8730	2949	8153	8338	6496	8338	4651	4660	5278	2949	3252	6496

		A												
7641	5278	2949	2601	2601	6496	8338	3252	8730	6496	5278	6496	4660	8153	4530

$7522 - 4573 = \square \rightarrow \boxed{\text{A}}$

$6492 - 1962 = \square \rightarrow \boxed{\text{S}}$

$5723 - 1072 = \square \rightarrow \boxed{\text{P}}$

$4875 - 2274 = \square \rightarrow \boxed{\text{B}}$

$12210 - 3480 = \square \rightarrow \boxed{\text{H}}$

$7174 - 3922 = \square \rightarrow \boxed{\text{T}}$

$8594 - 441 = \square \rightarrow \boxed{\text{N}}$

$8320 - 418 = \square \rightarrow \boxed{\text{F}}$

$7279 - 3351 = \square \rightarrow \boxed{\text{L}}$

$10556 - 2915 = \square \rightarrow \boxed{\text{G}}$

$4709 - 49 = \square \rightarrow \boxed{\text{I}}$

$7761 - 1265 = \square \rightarrow \boxed{\text{E}}$

$8797 - 459 = \square \rightarrow \boxed{\text{D}}$

$6887 - 1609 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

CLUE 3

By tallying all the extra dinosaur feed sacks dumped near the dock, the detective calculated the total weight.

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



 5105 9636 5651 9657 9736 3172 7460 2480 9712 5105 5753 2480 2480 9899 5641 8339 5753 9657

$1861 + 3244 = \boxed{} \rightarrow \boxed{\text{L}}$

$$2816 + 4644 = \boxed{} \rightarrow \boxed{}$$

$$4081 + 5655 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$5603 + 2736 = \boxed{} \rightarrow \boxed{\text{R}}$$

$1444 + 703 = \boxed{} \rightarrow \boxed{\text{N}}$

$$5357 + 4355 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$1399 + 1081 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$6304 + 3332 = \boxed{} \rightarrow \boxed{0}$$

$$3076 + 2677 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$2546 + 3105 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$2819 + 2822 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$4785 + 4872 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$2165 + 1007 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$6068 + 3831 = \boxed{} \rightarrow \boxed{\text{C}}$$

Scratch space:

Fractions of a number

The navigator examined a fraction of the harbor chart to isolate the suspect escape route.

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

Diagram illustrating a sequence of numbers arranged in two rows. The top row contains 15 boxes, and the bottom row contains 10 boxes. Some boxes are shaded orange and labeled 'S', indicating they are 'special'.

Top Row (15 boxes):

- Box 1: 38 (Special)
- Box 2: 27
- Box 3: 12
- Box 4: 11
- Box 5: 51
- Box 6: 18
- Box 7: 34
- Box 8: 29
- Box 9: 12
- Box 10: 11
- Box 11: 57
- Box 12: 34
- Box 13: 29
- Box 14: 19
- Box 15: 46
- Box 16: 38 (Special)
- Box 17: 36
- Box 18: 57
- Box 19: 34
- Box 20: 34

Bottom Row (10 boxes):

- Box 1: 29
- Box 2: 12
- Box 3: 49
- Box 4: 33
- Box 5: 57
- Box 6: 38 (Special)
- Box 7: 27
- Box 8: 11
- Box 9: 11
- Box 10: 34
- Box 11: 57

4/6 of 57 = → **S**

$\frac{1}{2}$ of 22 = $\rightarrow$ **D**

$$\frac{2}{3} \text{ of } 69 = \boxed{} \rightarrow \boxed{\text{K}}$$

$3/10$ of 190 = $\rightarrow$ **E**

$$\frac{1}{8} \text{ of } 96 = \boxed{} \rightarrow \boxed{\text{N}}$$

$1/2$ of 98 = $\rightarrow$ **T**

$$6/10 \text{ of } 55 = \boxed{} \rightarrow \boxed{\text{H}}$$

$3/6$ of $72 = \boxed{} \rightarrow \boxed{\text{F}}$

$$2/10 \text{ of } 170 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$\frac{1}{3} \text{ of } 153 = \boxed{} \rightarrow \boxed{\mathbf{Y}}$$

$\frac{1}{10}$ of 180 = $\rightarrow$ **B**

$6/8$ of $36 = \boxed{} \rightarrow \boxed{\text{A}}$

5/10 of 58 = → ☒

$1/10$ of 190 = $\rightarrow$ **C**

Scratch space:

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

Analyzing a fraction of the remaining tracks along the muddy shore revealed another vital detail.

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:

$2/4 \text{ of } 8 = \boxed{}$

$2/6 \text{ of } 18 = \boxed{}$

$4/8 \text{ of } 16 = \boxed{}$

$5/8 \text{ of } 8 = \boxed{}$

$2/10 \text{ of } 15 = \boxed{}$

$2/3 \text{ of } 15 = \boxed{}$

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

$4/8 \text{ of } 24 = \boxed{}$

$5/10 \text{ of } 4 = \boxed{}$

$1/5 \text{ of } 55 = \boxed{}$

$3/8 \text{ of } 24 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain escapes through deep waters with spinosaurus swim, then vanishes into thick clouds from a smoke bomb.
2. The villain rams cargo crates using triceratops armor, then vanishes into thick clouds from a smoke bomb.
3. The villain rams cargo crates using triceratops armor, then swings a cursed cutlass through the air.
4. The villain soars above the bay with pterodactyl flight, then scouts the watchtowers with a brass spyglass.
5. The villain soars above the bay with pterodactyl flight, then vanishes into thick clouds from a smoke bomb.
6. The villain escapes through deep waters with spinosaurus swim, then scouts the watchtowers with a brass spyglass.
7. The villain soars above the bay with pterodactyl flight, then fires warning shots with a flintlock blaster.
8. The villain smashes heavy iron locks with trex strength, then navigates foggy reefs with a golden compass.
9. The villain charges through harbor gates with raptor speed, then scouts the watchtowers with a brass spyglass.
10. The villain soars above the bay with pterodactyl flight, then swings a cursed cutlass through the air.
11. The villain escapes through deep waters with spinosaurus swim, then fires warning shots with a flintlock blaster.
12. The villain charges through harbor gates with raptor speed, then fires warning shots with a flintlock blaster.

Answer Key

The Mystery of the Jurassic Corsair

Culprit: William Fly

Pterodactyl Flight · Flintlock Blaster · Left-handed · Sandy Blonde Locks · Loud Whistles

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SUSPECT DOES NOT USE A CURSED CUTLASS"

What is the value of the 8 in 18,551? = 8000 (T) · What is the value of the 9 in 54,962? = 900 (E) · What is the value of the 7 in 55,175? = 70 (O) · What is the value of the 6 in 516,731? = 6000 (C) · What is the value of the 1 in 98,102? = 100 (H) · What is the value of the 7 in 960,742? = 700 (U) · What is the value of the 5 in 65,993? = 5000 (P) · What is the value of the 6 in 43,693? = 600 (R) · What is the value of the 7 in 87,860? = 7000 (L) · What is the value of the 1 in 41,383? = 1000 (S) · What is the value of the 8 in 77,282? = 80 (A) · What is the value of the 2 in 469,265? = 200 (N) · What is the value of the 8 in 693,800? = 800 (D)

Clue 2 (Subtraction): "A LEFT HANDED PIRATE GRABBED THE REINS"

7522 - 4573 = 2949 (A) · 6492 - 1962 = 4530 (S) · 5723 - 1072 = 4651 (P) · 4875 - 2274 = 2601 (B) · 12210 - 3480 = 8730 (H) · 7174 - 3922 = 3252 (T) · 8594 - 441 = 8153 (N) · 8320 - 418 = 7902 (F) · 7279 - 3351 = 3928 (L) · 10556 - 2915 = 7641 (G) · 4709 - 49 = 4660 (I) · 7761 - 1265 = 6496 (E) · 8797 - 459 = 8338 (D) · 6887 - 1609 = 5278 (R)

Clue 3 (Addition): "LOUD WHISTLES SCARED THE DINO RAIDER"

1861 + 3244 = 5105 (L) · 2816 + 4644 = 7460 (I) · 4081 + 5655 = 9736 (W) · 5603 + 2736 = 8339 (R) · 1444 + 703 = 2147 (N) · 5357 + 4355 = 9712 (T) · 1399 + 1081 = 2480 (S) · 6304 + 3332 = 9636 (O) · 3076 + 2677 = 5753 (E) · 2546 + 3105 = 5651 (U) · 2819 + 2822 = 5641 (A) · 4785 + 4872 = 9657 (D) · 2165 + 1007 = 3172 (H) · 6068 + 3831 = 9899 (C)

Clue 4 (Fractions of a number): "SANDY BLONDE LOCKS FELL ON THE SADDLE"

4/6 of 57 = 38 (S) · 1/2 of 22 = 11 (D) · 2/3 of 69 = 46 (K) · 3/10 of 190 = 57 (E) · 1/8 of 96 = 12 (N) · 1/2 of 98 = 49 (T) · 6/10 of 55 = 33 (H) · 3/6 of 72 = 36 (F) · 2/10 of 170 = 34 (L) · 1/3 of 153 = 51 (Y) · 1/10 of 180 = 18 (B) · 6/8 of 36 = 27 (A) · 5/10 of 58 = 29 (O) · 1/10 of 190 = 19 (C)

Clue 5 (Fractions of a number): surviving statement is box 7 → William Fly

2/4 of 8 = 4 · 2/6 of 18 = 6 · 4/8 of 16 = 8 · 5/8 of 8 = 5 · 2/10 of 15 = 3 · 2/3 of 15 = 10 · 1/3 of 3 = 1 · 4/8 of 24 = 12 · 5/10 of 4 = 2 · 1/5 of 55 = 11 · 3/8 of 24 = 9