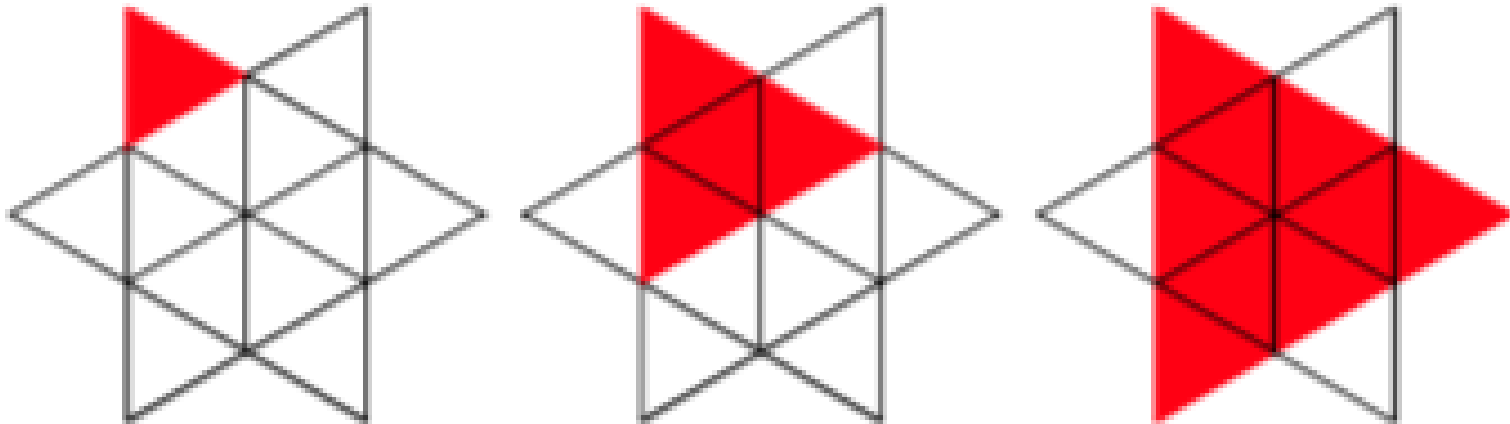


Starter

3. How Many Triangles?

$$12 + 6 + 2 = 20$$



The Mystery at the Grand Portrait Gallery


Answers

Clue 1: Forwards and Backwards

18 is	60 doodler	35 the
50 short	20 tall	14 female
10 mysterious	16 moustache	15 chocolate

Answer to clue 1: The mysterious moustache doodler is tall.

Clue 2: Right or Wrong

	Right	Wrong
A rectangle has two long sides the same length and two shorter sides the same length.	✓	
These coins add up to £1.16. 		✓
140cm is the same as 1m 40cm.	✓	
There are 15 days in two weeks.		✓
A cylinder has two squares at each end.		✓
$2 + 2 + 2 + 2$ is equal to 4×2 .	✓	
$42 - 13 = 30$		✓

Answer to clue 2: There are more wrong answers so the culprit is male.

The Mystery at the Grand Portrait Gallery

Answers

Clue 3: Arrays of Arrays!

$8 \times 3 = 24$ is	$10 \times 3 = 30$ Klee	$4 \times 5 = 20$ Cézanne	$4 \times 3 = 12$ in
$10 \times 5 = 50$ Choco Glory	$8 \times 2 = 16$ Monet	$6 \times 2 = 12$ vandal	$2 \times 7 = 14$ chocolate
$5 \times 2 = 10$ the	$2 \times 3 = 6$ found	$5 \times 5 = 25$ group	$10 \times 2 = 20$ wrapper

Answer to clue 3: The vandal is in Klee group.

Clue 4: Fraction of a Whole

3 was	0 shoe	4 beside	10 found
1 Dippy Duo	5 wrapper	11 Choco Glory	7 Caramel Bite
6 the	9 a	12 paintings	2 size

Answer to clue 4: A Caramel Bite wrapper was found beside the paintings.

Clue 5: Missing Moustaches

102 the	76 five	101 drawing
90 vandal	73 moustache	105 three
66 behind	100 a	99 left
98 size	70 four	92 footprint

Answer to clue 5: The moustache drawing vandal left a size four footprint.

The mysterious moustache doodler is Raphael!

Clue 1: Zoo True or False?

Answers

Clue 2: Divide and Conquer! **Answers**

- | | |
|-------------------------|-------------------------|
| 1. $210 \div 10 = 21$ | 5. $3 \div 10 = 0.3$ |
| 2. $3000 \div 10 = 300$ | 6. $7 \div 10 = 0.7$ |
| 3. $270 \div 10 = 27$ | 7. $300 \div 100 = 3$ |
| 4. $27 \div 100 = 0.27$ | 8. $21 \div 100 = 0.21$ |

	true	false
If there are four enclosures each holding eight lemurs, there must be thirty-two lemurs altogether.	✓	
One side of a pentagonal enclosure measures 18m. The perimeter must be 108m.		✓
0.25 equals $\frac{1}{4}$.	✓	
XIX is the same as 18.		✓
$218 - 89 = 119$		✓
The giraffes have 24kg of food. They eat half. The remainder would be 12 000g.	✓	
The penguin enclosure is closed for $\frac{1}{4}$ of the year. That means it is closed for four months.		✓
A child's ticket to the zoo costs £14.45. An adult's ticket costs £19.40. For two adults and one child, the price will be £53.25.	✓	
Annual membership to the zoo for one adult costs £60. That works out at £5 a month.	✓	

0.1 keys	0.03 friendly	0.7 mischievous	27 creature
0.3 is	3000 primate	2.1 noisy	21.7 leaves
0.27 monkey	21 a	30 seeds	300 very
3 the	0.07 screeches	0.027 fruit	0.21 sociable

The mischievous monkey is a very sociable creature.

There are more true answers. The monkey is male.

Clue 3: Along the Landing and Up the Stairs **Answers**

Eat Fruit

Clue 4: Feeding Time at the Zoo **Answers**

16.40 wasn't	13.00 capuchin	15.45 was	13.40 height
14.00 keys	15.40 who	16.16 baboon	17.20 mandrill
16.15 the	12.40 short	14.30 stole	30.30 lost
14.40 howler	13.25 monkey	13.30 dropped	16.00 a

Monkey who stole the keys was a mandrill.

Clue 5: How Tall is the Monkey? **Answers**

$$\begin{array}{r} 1. \quad \times \quad 23 \\ \quad \quad \quad 4 \\ \hline \quad \quad \quad 92 \end{array}$$

$$2. \quad 178 \div 2 = 89$$

$$\begin{array}{r} 3. \quad \quad 42 \\ \quad \quad + \quad 49 \\ \hline \quad \quad 91 \end{array}$$

$$\begin{array}{r} 4. \quad \quad 47 \\ \quad \quad \times \quad 2 \\ \hline \quad \quad 94 \end{array}$$

$$\begin{array}{r} 5. \quad \quad 121 \\ \quad \quad - \quad 27 \\ \hline \quad \quad 94 \end{array}$$

$$\begin{array}{r} 6. \quad \quad 564 \\ \quad \quad - \quad 475 \\ \hline \quad \quad 89 \end{array}$$

$$\begin{array}{r} 7. \quad \quad 1000 \\ \quad \quad - \quad 908 \\ \hline \quad \quad 92 \end{array}$$

$$8. \quad 184 \div 2 = 92$$

The Mystery of the Missing Pirate Treasure **Answers**

Clue 1

	Right	Wrong ✗
$32.6 - 21.52 = 11.8$		✗ (11.08)
$10.04 + 17.37 = 27.41$	✓	
$2.3 + 1.84 + 3.07 = 6.94$		✗ (7.21)
$95.32 - 26.86 = 68.46$	✓	
$1.257 + 15.682 = 16.939$	✓	
$68.72 - 39.562 = 29.162$		✗ (29.158)
$15.686 + 39.868 = 55.554$	✓	
$107.248 - 57.3 = 49.948$	✓	
$84.732 - 69.92 = 14.64$		✗ (14.812)
Total	5	4

Clue 1: _____ **The buried treasure is more than 150 metres above sea level.**

Clue 2

Use written methods of multiplication and division to solve these calculations. Colour the answers in the table below. Re-arrange the shaded words to find the second clue.

1. $18 \times 36 = 648$	2. $756 \div 9 = 84$	3. $8.2 \times 12 = 98.4$
4. $1024 \div 8 = 128$	5. $19 \times 28 = 532$	6. $65 \times 92 = 5980$

98.4 the	92.4 is more than	88 one thousand	540 six thousand
84 of the	532 population	640 five thousand	130 four thousand
648 island	128 is less than	5980 ten thousand	6980 three thousand

Clue 2: _____ **The population of the island is less than ten thousand.**

Clue 3

What is the height of the tide at 3:00 p.m. in the afternoon? **(1.8 metres)**

How many hours did it take for the tide to change from its lowest level to its highest level? **(6 hours)**

What is the height of the tide at 7:00 p.m.? **(3.4 metres)**

By how many metres did the tide level change between 2:00 p.m. and 8:00 p.m.? **(2.8 metres)**

By how many metres did the tide level change between 8:00 p.m. and 11:00 p.m.? **(1.1 metres)**

6 hours the	1.7 metres is less than	1.2 metres 60 miles	1.1 metres 70 miles
5 hours 80 miles	3.4 metres island	2.8 metres is more than	1.8 metres away

Clue 3: _____ **The island is more than 70 miles away.**

Clue 4

1.	2.6	1.84	1.8	1.805	2.06
	1.8	1.805	1.84	2.06	2.6
2.	1.1	1.2	2.1	1.19	2.2
	1.1	1.19	1.2	2.1	2.2
3.	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{5}{6}$	$\frac{11}{24}$	$\frac{2}{3}$
	$\frac{11}{24}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{2}{3}$	$\frac{5}{6}$
4.	56 235	56 181	56 824	65 455	56 881
	56 181	56 235	56 824	56 881	65 455
5.	56.268	562.68	5.626	56 268	5626.8
	5.626	56.265	562.68	5626.8	56 268

the south-west 2.06	located in $\frac{5}{6}$	treasure caves 2.2	the north-east 2.1
island's 2.6	the south-east $\frac{2}{3}$	the north 56 881	the east 5626.8
are 65 455	the south 1.84	the north-west 56 268	the west $\frac{5}{8}$

Clue 4: _____ **The island's treasure caves are located in the north-west.**

The buried treasure can be found on: _____ **Ring of Rocks Island**