



The Case of the Missing Magic Seed

Grade 1 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

Oh no! Someone took the magic golden seed from the forest clinic. The animals are sick and need its healing glow. We must find the 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 Rogue Herbalist is _____

Possible suspects

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

NAME	NATURE MAGIC	FOREST GEAR	WRITING HAND	HAIR COLOR	ALLERGY
Dr George	animal speech	a leaf cape	right-handed writer	bark brown hair	sticky pine sap
Dr Fay	animal speech	a leaf cape	left-handed writer	moss green hair	itchy nettles
Dr Dan	cloud calling	a sun visor	right-handed writer	leaf yellow hair	itchy nettles
Dr Roy	animal speech	a pine badge	right-handed writer	leaf yellow hair	loud bird calls
Dr Sam	wind healing	muddy boots	left-handed writer	bark brown hair	sticky pine sap
Dr Carlos	plant growth	a vine rope	right-handed writer	moss green hair	loud bird calls
Dr Zoe	tree climbing	muddy boots	left-handed writer	bark brown hair	sticky pine sap
Dr Kim	wind healing	muddy boots	left-handed writer	bark brown hair	itchy nettles
Dr Pat	wind healing	a leaf cape	left-handed writer	leaf yellow hair	sticky pine sap
Dr Max	wind healing	a leaf cape	left-handed writer	moss green hair	sticky pine sap
Dr Jane	animal speech	muddy boots	right-handed writer	bark brown hair	sticky pine sap
Dr Leo	animal speech	a sun visor	right-handed writer	moss green hair	sticky pine sap
Dr Ray	wind healing	a vine rope	left-handed writer	bark brown hair	itchy nettles
Dr Val	tree climbing	a pine badge	left-handed writer	bark brown hair	sticky pine sap
Dr Elizabeth	plant growth	a vine rope	left-handed writer	bark brown hair	sticky pine sap
Dr Jan	cloud calling	muddy boots	left-handed writer	bark brown hair	itchy nettles
Dr Mae	plant growth	a pine badge	left-handed writer	bark brown hair	sticky pine sap
Dr Rex	cloud calling	a pine badge	right-handed writer	moss green hair	loud bird calls
Dr Alice	wind healing	a pine badge	right-handed writer	leaf yellow hair	itchy nettles
Dr Ben	plant growth	a leaf cape	right-handed writer	moss green hair	itchy nettles
Dr Grace	tree climbing	a sun visor	left-handed writer	bark brown hair	itchy nettles

CLUE 1 Place value

The clinic scale has a screen. It shows tens and ones to weigh the dry leaves.

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

T									T									T
45	82	34	48	43	74	74	90	56	45	90	27	74	90	34	66	83	90	45
71	34	43	27	43	88	32	83	34	27	90	81	34						

What number has 4 tens and 5 ones? →

T

What number has 8 tens and 1 one? →

P

What number has 4 tens and 3 ones? →

A

What number has 7 tens and 1 one? →

W

What number has 3 tens and 2 ones? →

I

What number has 7 tens and 4 ones? →

D

What number has 8 tens and 8 ones? →

V

What number has 9 tens and 0 ones? →

O

What number has 6 tens and 6 ones? →

S

What number has 3 tens and 4 ones? →

E

What number has 4 tens and 8 ones? →

B

What number has 5 tens and 6 ones? →

C

What number has 8 tens and 3 ones? →

N

What number has 2 tens and 7 ones? →

R

What number has 8 tens and 2 ones? →

H

Scratch space:

CLUE 2 Addition

We count the clean bandages we have. Let us add them up to find the total.

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

T													T		
16	5	10	14	3	2	2	18	3	19	8	13	3	16	10	4

							T		T						T
17	2	11	10	4	8	3	16	5	16	5	10	2	10	9	16

5	18	19	15

$11 + 5 = \square \rightarrow$ T	$8 + 10 = \square \rightarrow$ A	$9 + 8 = \square \rightarrow$ C
---	---	--

$7 + 6 = \square \rightarrow$ R	$10 + 5 = \square \rightarrow$ D	$2 + 1 = \square \rightarrow$ I	$7 + 3 = \square \rightarrow$ E
--	---	--	--

$6 + 2 = \square \rightarrow$ W	$6 + 13 = \square \rightarrow$ N	$2 + 2 = \square \rightarrow$ S	$4 + 7 = \square \rightarrow$ U
--	---	--	--

$6 + 3 = \square \rightarrow$ F	$3 + 2 = \square \rightarrow$ H	$9 + 5 = \square \rightarrow$ V	$1 + 1 = \square \rightarrow$ L
--	--	--	--

Scratch space:

CLUE 3

Subtraction

We had some healing juice in bottles. We gave some to the deer and have less now.

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

T																	
8	10	3	7	18	6	6	4	18	19	5	13	19	2	9	5	11	15
	T																
2	8	18	16	1	17	14	18	19	3	2	4	14					

$12 - 4 =$

→

T

$20 - 3 =$

→

Y

$16 - 1 =$

→

M

$20 - 1 =$

→

N

$17 - 8 =$

→

F

$7 - 4 =$

→

E

$14 - 7 =$

→

V

$17 - 3 =$

→

P

$8 - 6 =$

→

S

$17 - 7 =$

→

H

$17 - 6 =$

→

O

$15 - 2 =$

→

U

$9 - 5 =$

→

A

$13 - 7 =$

→

L

$6 - 5 =$

→

K

$12 - 7 =$

→

R

$20 - 2 =$

→

I

$18 - 2 =$

→

C

Scratch space:

CLUE 4 Skip counting

The squirrels left nuts in groups of five. We can skip count them on the dirt path.

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

W														
33	90	65	24	60	100	12	6	25	39	26	100	12	6	24 65

						W				
9	26	39	42	9	39	24	33	100	110	26 15 39

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 → **W**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **R**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **B**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **I**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **T**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **D**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **S**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 → **N**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **E**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **F**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **K**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **O**

Scratch space:

CLUE 5**Missing addends - the last clue**

The first aid box has space for ten seeds. We must find how many are missing.

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:

$5 + \underline{\quad} = 9$

$7 + \underline{\quad} = 14$

$3 + \underline{\quad} = 9$

$5 + \underline{\quad} = 8$

$7 + \underline{\quad} = 9$

$8 + \underline{\quad} = 20$

$10 + \underline{\quad} = 21$

$10 + \underline{\quad} = 19$

$3 + \underline{\quad} = 11$

$9 + \underline{\quad} = 14$

$5 + \underline{\quad} = 15$

Step 2 - cross out the sentence with each answer:

1. The villain grows giant fast moss, then pins on a shiny pine badge.
2. The villain climbs the tallest pine, then puts on a sun visor.
3. The villain calls down a warm rain, then twirls a strong vine rope.
4. The villain climbs the tallest pine, then pins on a shiny pine badge.
5. The villain climbs the tallest pine, then twirls a strong vine rope.
6. The villain climbs the tallest pine, then zips up muddy boots.
7. The villain heals the sick oak tree, then zips up muddy boots.
8. The villain whispers to wild foxes, then wraps a green leaf cape.
9. The villain heals the sick oak tree, then puts on a sun visor.
10. The villain whispers to wild foxes, then pins on a shiny pine badge.
11. The villain grows giant fast moss, then zips up muddy boots.
12. The villain heals the sick oak tree, then twirls a strong vine rope.

Answer Key

The Case of the Missing Magic Seed

Culprit: Dr Mae

plant growth · a pine badge · left-handed writer · bark brown hair · sticky pine sap

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE BAD DOCTOR DOES NOT WEAR A VINE ROPE"

What number has 4 tens and 5 ones? = 45 (T) · What number has 8 tens and 1 one? = 81 (P) · What number has 4 tens and 3 ones? = 43 (A) · What number has 7 tens and 1 one? = 71 (W) · What number has 3 tens and 2 ones? = 32 (I) · What number has 7 tens and 4 ones? = 74 (D) · What number has 8 tens and 8 ones? = 88 (V) · What number has 9 tens and 0 ones? = 90 (O) · What number has 6 tens and 6 ones? = 66 (S) · What number has 3 tens and 4 ones? = 34 (E) · What number has 4 tens and 8 ones? = 48 (B) · What number has 5 tens and 6 ones? = 56 (C) · What number has 8 tens and 3 ones? = 83 (N) · What number has 2 tens and 7 ones? = 27 (R) · What number has 8 tens and 2 ones? = 82 (H)

Clue 2 (Addition): "THE VILLAIN WRITES CLUES WITH THE LEFT HAND"

$11 + 5 = 16$ (T) · $8 + 10 = 18$ (A) · $9 + 8 = 17$ (C) · $7 + 6 = 13$ (R) · $10 + 5 = 15$ (D) · $2 + 1 = 3$ (I) · $7 + 3 = 10$ (E) · $6 + 2 = 8$ (W) · $6 + 13 = 19$ (N) · $2 + 2 = 4$ (S) · $4 + 7 = 11$ (U) · $6 + 3 = 9$ (F) · $3 + 2 = 5$ (H) · $9 + 5 = 14$ (V) · $1 + 1 = 2$ (L)

Clue 3 (Subtraction): "THE VILLAIN RUNS FROM STICKY PINE SAP"

$12 - 4 = 8$ (T) · $20 - 3 = 17$ (Y) · $16 - 1 = 15$ (M) · $20 - 1 = 19$ (N) · $17 - 8 = 9$ (F) · $7 - 4 = 3$ (E) · $14 - 7 = 7$ (V) · $17 - 3 = 14$ (P) · $8 - 6 = 2$ (S) · $17 - 7 = 10$ (H) · $17 - 6 = 11$ (O) · $15 - 2 = 13$ (U) · $9 - 5 = 4$ (A) · $13 - 7 = 6$ (L) · $6 - 5 = 1$ (K) · $12 - 7 = 5$ (R) · $20 - 2 = 18$ (I) · $18 - 2 = 16$ (C)

Clue 4 (Skip counting): "WE FOUND STRANDS OF BARK BROWN HAIR"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (R) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (B) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 = 12 (D) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (N) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (F) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (K) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 = 60 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (O)

Clue 5 (Missing addends): surviving statement is box 1 → Dr Mae

$5 + \underline{\quad} = 9 = 4$ · $7 + \underline{\quad} = 14 = 7$ · $3 + \underline{\quad} = 9 = 6$ · $5 + \underline{\quad} = 8 = 3$ · $7 + \underline{\quad} = 9 = 2$ · $8 + \underline{\quad} = 20 = 12$ · $10 + \underline{\quad} = 21 = 11$ · $10 + \underline{\quad} = 19 = 9$ · $3 + \underline{\quad} = 11 = 8$ · $9 + \underline{\quad} = 14 = 5$ · $5 + \underline{\quad} = 15 = 10$