



The Great Homework Folder Mix-Up

Grade 6 math · Percentages, Exponents, Order of operations, Multiplication, Division · Reading level grades 1-2

Detective: _____ Date: _____

Oh no! Someone mixed up all the homework folders in the main office. The School Principal needs your help to catch the Hallway Prankster. Follow the clues and do the math to save the day!

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 Hallway Prankster is _____

Possible suspects

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

NAME	HALLWAY SKILL	POCKET ITEM	WRITING HAND	HEAD ACCESSORY	DISTRACTION
Penny Peterson	super chalkboard erasing	red laser pointer	writes with right hand	yellow star hairclip	smelly dirty gym socks
Junie Jones	perfect paper airplane throwing	shiny gold star stickers	writes with right hand	shiny blue headband	smelly dirty gym socks
Linus VanPelt	neat locker organizing	wood yardstick ruler	writes with left hand	yellow star hairclip	squeaky whiteboard markers
Matilda Wormwood	quiet library tiptoeing	wood yardstick ruler	writes with left hand	shiny blue headband	smelly dirty gym socks
Buster Baxter	lightning speed hall walking	red laser pointer	writes with left hand	yellow star hairclip	squeaky whiteboard markers
Mercy Watson	perfect paper airplane throwing	red laser pointer	writes with left hand	yellow star hairclip	smelly dirty gym socks
Principal Bob	lightning speed hall walking	wood yardstick ruler	writes with left hand	bright red baseball cap	squeaky whiteboard markers
Judy Moody	super chalkboard erasing	wood yardstick ruler	writes with right hand	yellow star hairclip	squeaky whiteboard markers
Lucy VanPelt	super chalkboard erasing	wood yardstick ruler	writes with left hand	bright red baseball cap	smelly dirty gym socks
Nurse Joy	super chalkboard erasing	wood yardstick ruler	writes with right hand	shiny blue headband	sticky wet cleaning sponge
Coach Dan	perfect paper airplane throwing	wood yardstick ruler	writes with left hand	yellow star hairclip	squeaky whiteboard markers
Ramona Quimby	lightning speed hall walking	red laser pointer	writes with right hand	yellow star hairclip	squeaky whiteboard markers
Charlie Brown	neat locker organizing	sparkly glitter glue	writes with left hand	yellow star hairclip	squeaky whiteboard markers
Greg Heffley	lightning speed hall walking	sparkly glitter glue	writes with right hand	yellow star hairclip	squeaky whiteboard markers
Francine Frensky	neat locker organizing	red laser pointer	writes with right hand	shiny blue headband	sticky wet cleaning sponge
Miss Frizzle	super chalkboard erasing	wood yardstick ruler	writes with left hand	yellow star hairclip	sticky wet cleaning sponge
Stink Moody	perfect paper airplane throwing	shiny gold star stickers	writes with left hand	yellow star hairclip	sticky wet cleaning sponge
Billy Miller	quiet library tiptoeing	red laser pointer	writes with right hand	shiny blue headband	squeaky whiteboard markers
Nate Wright	lightning speed hall walking	shiny gold star stickers	writes with right hand	shiny blue headband	smelly dirty gym socks
Sally Brown	perfect paper airplane throwing	loud silver whistle	writes with right hand	bright red baseball cap	smelly dirty gym socks
Janitor Joe	super chalkboard erasing	loud silver whistle	writes with left hand	yellow star hairclip	squeaky whiteboard markers

CLUE 1 Percentages

We look at the grade book. The teacher wrote down the scores as a part of one hundred. Let us find the percentage!

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

T																T
15	19	4	45	10	28	28	38	10	31	27	9	4	5	31	9	15

19	38	45	4	38	28	9	24	27	30	19	10	5	15	28	4	

$60\% \text{ of } 25 = \square \rightarrow \boxed{\text{T}}$

$20\% \text{ of } 155 = \square \rightarrow \boxed{\text{N}}$

$25\% \text{ of } 108 = \square \rightarrow \boxed{\text{D}}$

$60\% \text{ of } 50 = \square \rightarrow \boxed{\text{W}}$

$10\% \text{ of } 90 = \square \rightarrow \boxed{\text{O}}$

$5\% \text{ of } 200 = \square \rightarrow \boxed{\text{I}}$

$5\% \text{ of } 560 = \square \rightarrow \boxed{\text{L}}$

$20\% \text{ of } 20 = \square \rightarrow \boxed{\text{E}}$

$60\% \text{ of } 75 = \square \rightarrow \boxed{\text{V}}$

$20\% \text{ of } 190 = \square \rightarrow \boxed{\text{A}}$

$50\% \text{ of } 10 = \square \rightarrow \boxed{\text{S}}$

$10\% \text{ of } 190 = \square \rightarrow \boxed{\text{H}}$

$25\% \text{ of } 96 = \square \rightarrow \boxed{\text{U}}$

Scratch space:

CLUE 2 Exponents

Look at this box of grid paper. The squares multiply very fast when we stack them up. Let us find the power!

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

W																	
64	27	256	9	216	169	121	128	361	27	169	4	125	343	400	27	343	121
125	169	8	400	27	343	27	256	8	400	128	169	121					

$8^2 = \square \rightarrow$ W	$3^2 = \square \rightarrow$ O	$5^3 = \square \rightarrow$ I	$2^3 = \square \rightarrow$ T
$19^2 = \square \rightarrow$ P	$16^2 = \square \rightarrow$ F	$2^2 = \square \rightarrow$ C	$11^2 = \square \rightarrow$ D
$3^3 = \square \rightarrow$ E	$6^3 = \square \rightarrow$ U	$2^7 = \square \rightarrow$ A	$7^3 = \square \rightarrow$ L
$13^2 = \square \rightarrow$ N	$20^2 = \square \rightarrow$ H		

Scratch space:

CLUE 3

Order of operations

First we must pack our bags. Next we zip them. We must do things in the right order to get the key!

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

T																		
38	17	75	42	58	9	75	73	54	71	62	73	30	54	75	30	42		
	T						T								T			
42	38	45	12	12	75	26	38	17	75	12	30	73	47	54	42	38	75	30

$24 + 7 \times 2 = \square \rightarrow \boxed{\text{T}}$

$64 + 3 \times 3 = \square \rightarrow \boxed{\text{A}}$

$15 + 5 \times 6 = \square \rightarrow \boxed{\text{O}}$

$6 \times 7 - 25 = \square \rightarrow \boxed{\text{H}}$

$10 \times 7 - 23 = \square \rightarrow \boxed{\text{N}}$

$17 + 6 \times 9 = \square \rightarrow \boxed{\text{Y}}$

$3 \times 9 - 1 = \square \rightarrow \boxed{\text{D}}$

$5 \times 7 - 5 = \square \rightarrow \boxed{\text{R}}$

$9 \times 9 - 6 = \square \rightarrow \boxed{\text{E}}$

$7 \times 4 - 19 = \square \rightarrow \boxed{\text{U}}$

$2 + 5 \times 2 = \square \rightarrow \boxed{\text{P}}$

$22 + 5 \times 4 = \square \rightarrow \boxed{\text{S}}$

$38 + 4 \times 4 = \square \rightarrow \boxed{\text{K}}$

$44 + 2 \times 9 = \square \rightarrow \boxed{\text{M}}$

$12 \times 7 - 26 = \square \rightarrow \boxed{\text{Q}}$

Scratch space:

CLUE 4 Multiplication facts (1-12)

The crayons are packed in equal rows on the shelf. We can multiply the rows to count them all fast!

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

$1 \times 1 = \boxed{} \rightarrow \boxed{\mathbf{T}}$

$11 \times 4 = \boxed{} \rightarrow \boxed{\text{R}}$

$5 \times 7 = \square \rightarrow \mathbf{A}$

$11 \times 8 = \boxed{} \rightarrow \boxed{\mathbf{Y}}$

$1 \times 5 = \square \rightarrow \boxed{\text{H}}$

$11 \times 11 = \boxed{} \rightarrow \boxed{0}$

$11 \times 5 = \square \rightarrow \mathbf{C}$

$7 \times 8 = \square \rightarrow \boxed{\mathbf{E}}$

$5 \times 9 = \square \rightarrow \boxed{\mathbf{P}}$

$3 \times 12 = \square \rightarrow \boxed{\mathbf{W}}$

$10 \times 8 = \boxed{} \rightarrow \boxed{\text{L}}$

$6 \times 11 = \square \rightarrow \boxed{\text{S}}$

$11 \times 3 = \square \rightarrow \square$

Scratch space:

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

We need to share the stickers equally among our friends. Let us divide them up so everyone gets the same!

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:

$120 \div 12 = \boxed{}$

$54 \div 6 = \boxed{}$

$120 \div 10 = \boxed{}$

$72 \div 9 = \boxed{}$

$30 \div 10 = \boxed{}$

$42 \div 6 = \boxed{}$

$48 \div 12 = \boxed{}$

$40 \div 8 = \boxed{}$

$20 \div 10 = \boxed{}$

$7 \div 7 = \boxed{}$

$36 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sped down the quiet hallway, then blew the loud silver whistle.
2. The villain threw a neat paper airplane, then flashed the red laser pointer.
3. The villain cleaned up the messy lockers, then flashed the red laser pointer.
4. The villain erased the giant chalkboard, then flashed the red laser pointer.
5. The villain erased the giant chalkboard, then blew the loud silver whistle.
6. The villain threw a neat paper airplane, then dropped the shiny gold star stickers.
7. The villain sped down the quiet hallway, then spilled the sparkly glitter glue.
8. The villain cleaned up the messy lockers, then dropped the shiny gold star stickers.
9. The villain cleaned up the messy lockers, then spilled the sparkly glitter glue.
10. The villain sped down the quiet hallway, then flashed the red laser pointer.
11. The villain cleaned up the messy lockers, then measured with the wood yardstick ruler.
12. The villain threw a neat paper airplane, then measured with the wood yardstick ruler.

Answer Key

The Great Homework Folder Mix-Up

Culprit: Linus VanPelt

neat locker organizing · wood yardstick ruler · writes with left hand · yellow star hairclip · squeaky whiteboard markers

Trail: Start 21 → Clue 1 19 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Percentages): "THE VILLAIN DOES NOT HAVE A LOUD WHISTLE"

60% of 25 = 15 (T) · 20% of 155 = 31 (N) · 25% of 108 = 27 (D) · 60% of 50 = 30 (W) · 10% of 90 = 9 (O) · 5% of 200 = 10 (I) · 5% of 560 = 28 (L) · 20% of 20 = 4 (E) · 60% of 75 = 45 (V) · 20% of 190 = 38 (A) · 50% of 10 = 5 (S) · 10% of 190 = 19 (H) · 25% of 96 = 24 (U)

Clue 2 (Exponents): "WE FOUND A PENCIL HELD IN THE LEFT HAND"

$8^2 = 64$ (W) · $3^2 = 9$ (O) · $5^3 = 125$ (I) · $2^3 = 8$ (T) · $19^2 = 361$ (P) · $16^2 = 256$ (F) · $2^2 = 4$ (C) · $11^2 = 121$ (D) · $3^3 = 27$ (E) · $6^3 = 216$ (U) · $2^7 = 128$ (A) · $7^3 = 343$ (L) · $13^2 = 169$ (N) · $20^2 = 400$ (H)

Clue 3 (Order of operations): "THE SQUEAKY MARKERS STOPPED THE PRANKSTER"

$24 + 7 \times 2 = 38$ (T) · $64 + 3 \times 3 = 73$ (A) · $15 + 5 \times 6 = 45$ (O) · $6 \times 7 - 25 = 17$ (H) · $10 \times 7 - 23 = 47$ (N) · $17 + 6 \times 9 = 71$ (Y) · $3 \times 9 - 1 = 26$ (D) · $5 \times 7 - 5 = 30$ (R) · $9 \times 9 - 6 = 75$ (E) · $7 \times 4 - 19 = 9$ (U) · $2 + 5 \times 2 = 12$ (P) · $22 + 5 \times 4 = 42$ (S) · $38 + 4 \times 4 = 54$ (K) · $44 + 2 \times 9 = 62$ (M) · $12 \times 7 - 26 = 58$ (Q)

Clue 4 (Multiplication facts (1-12)): "THEY LOST A YELLOW STAR HAIRCLIP"

$1 \times 1 = 1$ (T) · $11 \times 4 = 44$ (R) · $5 \times 7 = 35$ (A) · $11 \times 8 = 88$ (Y) · $1 \times 5 = 5$ (H) · $11 \times 11 = 121$ (O) · $11 \times 5 = 55$ (C) · $7 \times 8 = 56$ (E) · $5 \times 9 = 45$ (P) · $3 \times 12 = 36$ (W) · $10 \times 8 = 80$ (L) · $6 \times 11 = 66$ (S) · $11 \times 3 = 33$ (I)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Linus VanPelt

$120 \div 12 = 10$ · $54 \div 6 = 9$ · $120 \div 10 = 12$ · $72 \div 9 = 8$ · $30 \div 10 = 3$ · $42 \div 6 = 7$ · $48 \div 12 = 4$ · $40 \div 8 = 5$ · $20 \div 10 = 2$ · $7 \div 7 = 1$ · $36 \div 6 = 6$