

PYRAMID SUM Puzzle

SIMPLIFYING EXPRESSIONS Pyramid Sum

F
 $x + 2(3x + 1) - 2x$
 $6x + 5$

L
 $13 + 5(x - 2) - 3x$
 $x + 3$

J
 $7(2x + 3) - 8x + 4$
 $4x + 1$

C
 $5x - 3x + 6(x + 2) - 8$
 $7x + 8$

K
 $19x + 2 + 3(1 - 4x)$
 $5x + 4$

I
 $\frac{2}{3}(18x + 6) - 3x + 4$
 $6x + 10$

D
 $8(3x + 2) + 1 - 11x$
 $5x + 11$

E
 $7(2x + 1) + 2(1 - 5x)$
 $11x + 14$

B
 $6(2x + 6) - 27 + 3x$
 $9x + 21$

POSITIVE INTEGER
OPERATIONS ONLY

SIMPLIFYING *expressions*

Created by: ALL THINGS ALGEBRA®

SIMPLIFYING EXPRESSIONS

Pyramid Sum Puzzle

Objective: To practice simplifying expressions by distributing and combining like terms.

***This activity includes operations with positive integers only.** [Click here](#) for a version with both positive and negative operations with integers.

Activity Directions:

- 1) Print enough templates and expressions for each student (pages 3-4 of this document). I like to do the template on colored paper and the expressions on white paper to make the final product pop!
- 2) Students simplify each expressions and place the simplified expression in the box. I recommend having them show all work on a separate sheet of notebook paper.
- 3) Students cut the boxes out and arrange the top row according to the letters on the template. Then, they must arrange the remaining boxes so that each solution is the sum of the two solutions directly above it. Paste all pieces down.

An answer key is provided on page 5. This assignment is VERY easy to grade with the box letters and solutions!

SIMPLIFYING EXPRESSIONS *Pyramid Sum Puzzle* Name: _____

| | | | | |
|---|---|---|---|---|
| F | L | J | H | A |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SIMPLIFYING EXPRESSIONS *Pyramid Sum Puzzle*

Directions: Simplify each expression. Write the simplified expression in the box. Cut out the boxes and paste F, L, J, H, and A on the top row (in that order) on the template. Paste the remaining boxes so that the solution to each problem is the sum of the two solutions directly above it.

| | | | | |
|------------------------------------|------------------------------------|---|------------------------------------|--------------------------------------|
| A $3(3x+1)-1-8x$ [] | B $4(2x+6)-27+3x$ [] | C $5x-3x+6(x+2)-8$ [] | D $8(3x+2)+1-11x$ [] | E $7(2x+1)+2(1-5x)$ [] |
| F $x+2(3x+1)-2x$ [] | G $39+5x+9(3x-2)$ [] | H $\frac{1}{2}(4x+18)+x-2$ [] | | |
| K $19x+2+3(1-4x)$ [] | L $13+5(x-2)-3x$ [] | M $4(3x+8)+5(x-4)$ [] | | |

SIMPLIFYING EXPRESSIONS *Pyramid Sum Puzzle* Name: _____

| | | | | |
|--|--|---|--|--------------------------------------|
| F $x+2(3x+1)-2x$ $6x+5$ | L $13+5(x-2)-3x$ $x+3$ | J $7(2x+1)-8x+4-24$ $4x+1$ | H $\frac{1}{2}(4x+18)+x-2$ $2x+9$ | A $3(3x+1)-1-8x$ $3x+2$ |
| C $5x-3x+6(x+2)-8$ $7x+8$ | K $19x+2+3(1-4x)$ $5x+4$ | I $\frac{2}{3}(8x+6)-3x+4$ $6x+10$ | D $8(3x+2)+1-11x$ $5x+11$ | |
| E $7(2x+1)+2(1-5x)$ $11x+4$ | B $4(2x+6)-27+3x$ $9x+15$ | | | |

Actual answers not shown in this image.

SIMPLIFYING EXPRESSIONS *Pyramid Sum Puzzle*

Directions: Simplify each expression. Write the simplified expression in the box.
Cut out the boxes and paste F, L, J, H, and A on the top row (in that order) on the template. Paste the remaining boxes so that the solution to each problem is the sum of the two solutions directly above it.

| | | | | |
|---|---|--|---|---|
| A $3(3x + 1) - 1 - 8x$ <input type="text"/> | B $6(2x + 6) - 27 + 3x$ <input type="text"/> | C $5x - 3x + 6(x + 2) - 8$ <input type="text"/> | D $8(3x + 2) + 1 - 11x$ <input type="text"/> | E $7(2x + 1) + 2(1 - 5x)$ <input type="text"/> |
| F $x + 2(3x + 1) - 2x$ <input type="text"/> | G $39 + 5x + 9(3x - 2)$ <input type="text"/> | H $\frac{1}{2}(4x + 18) + x - 2$ <input type="text"/> | I $\frac{2}{3}(18x + 6) - 3x + 4$ <input type="text"/> | J $7(2x + 3) - 8x + 4 - 24$ <input type="text"/> |
| K $19x + 2 + 3(1 - 4x)$ <input type="text"/> | L $13 + 5(x - 2) - 3x$ <input type="text"/> | M $4(3x + 8) + 5(x - 4)$ <input type="text"/> | N $5 + 4(8x + 6) - 2x$ <input type="text"/> | P $9(8x + 4) + 2(7 - 5x)$ <input type="text"/> |

SIMPLIFYING EXPRESSIONS

Pyramid Sum Puzzle Name: _____

Answer Key

| | | | | |
|---|--|---|--|---|
| F $x + 2(3x + 1) - 2x$ $5x + 2$ | L $13 + 5(x - 2) - 3x$ $2x + 3$ | J $7(2x + 3) - 8x + 4 - 24$ $6x + 1$ | H $\frac{1}{2}(4x + 18) + x - 2$ $3x + 7$ | A $3(3x + 1) - 1 - 8x$ $x + 2$ |
| K $19x + 2 + 3(1 - 4x)$ $7x + 5$ | C $5x - 3x + 6(x + 2) - 8$ $8x + 4$ | I $\frac{2}{3}(18x + 6) - 3x + 4$ $9x + 8$ | E $7(2x + 1) + 2(1 - 5x)$ $4x + 9$ | |
| B $6(2x + 6) - 27 + 3x$ $15x + 9$ | M $4(3x + 8) + 5(x - 4)$ $17x + 12$ | D $8(3x + 2) + 1 - 11x$ $13x + 17$ | | |
| G $39 + 5x + 9(3x - 2)$ $32x + 21$ | N $5 + 4(8x + 6) - 2x$ $30x + 29$ | | | |
| P $9(8x + 4) + 2(7 - 5x)$ $62x + 50$ | | | | |

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