

# Transformations Word Search

## SMALL GROUP ACTIVITY

**Transformations Word Search**

**PERFECT FOR USE WITH DRY ERASE POCKETS!**

**WORD:**

M + A + T + H = *love* © Sarah Carter @mathequalslove

## Group Tracking Card for Easy Accountability

Transformations Word Search				
Name(s):				
A	B	C	D	E
F	G	H	I	J
K	L	M	N	O

## Two Different Card Formats

### 3 Pages (Large Cards)

A	$f(x + 8)$
B	$f(x + 6) + 2$
C	$-f(\frac{1}{2}x) - 2$
D	$-\frac{1}{2}f(x + 4) - 5.5$
E	$6f(\frac{1}{2}(x + 4)) + 3$
F	$f(2(x - 6)) + 8$
G	$f(-\frac{1}{2}(x - 5)) - 9$
H	
I	
J	
K	
L	
M	
N	
O	

### 1 Page (Small Cards)

A	B	C
$f(x + 8)$	$f(x) - 5$	$f(x - 4)$
D	E	F
$f(x + 6) + 7$	$f(x + 7) - 8$	$f(x + 6) + 2$
G	H	I
$-f(x - 3) + 4$	$-4f(x)$	$f(-2x)$
J	K	L
$-f(2x) - 9$	$-f(\frac{1}{2}x) - 2$	$-\frac{1}{2}f(x + 4) - 5.5$
M	N	O
$6f(\frac{1}{2}(x + 4)) + 3$	$f(2(x - 6)) + 8$	$f(-\frac{1}{2}(x - 5)) - 9$

## Also Provided in Worksheet Format

### Transformations Word Search Key

Puzzle	Transformation	Word
A	$f(x + 8)$	
B	$f(x) - 5$	
C	$f(x - 4)$	
D	$f(x + 6) + 7$	
E	$f(x + 7) - 8$	
F	$f(x + 6) + 2$	
G	$-f(x - 3) + 4$	
H	$-4f(x)$	
I	$f(-2x)$	
J	$-f(2x) - 9$	
K	$-f(\frac{1}{2}x) - 2$	
L	$-\frac{1}{2}f(x + 4) - 5.5$	
M	$6f(\frac{1}{2}(x + 4)) + 3$	
N	$f(2(x - 6)) + 8$	
O	$f(-\frac{1}{2}(x - 5)) - 9$	

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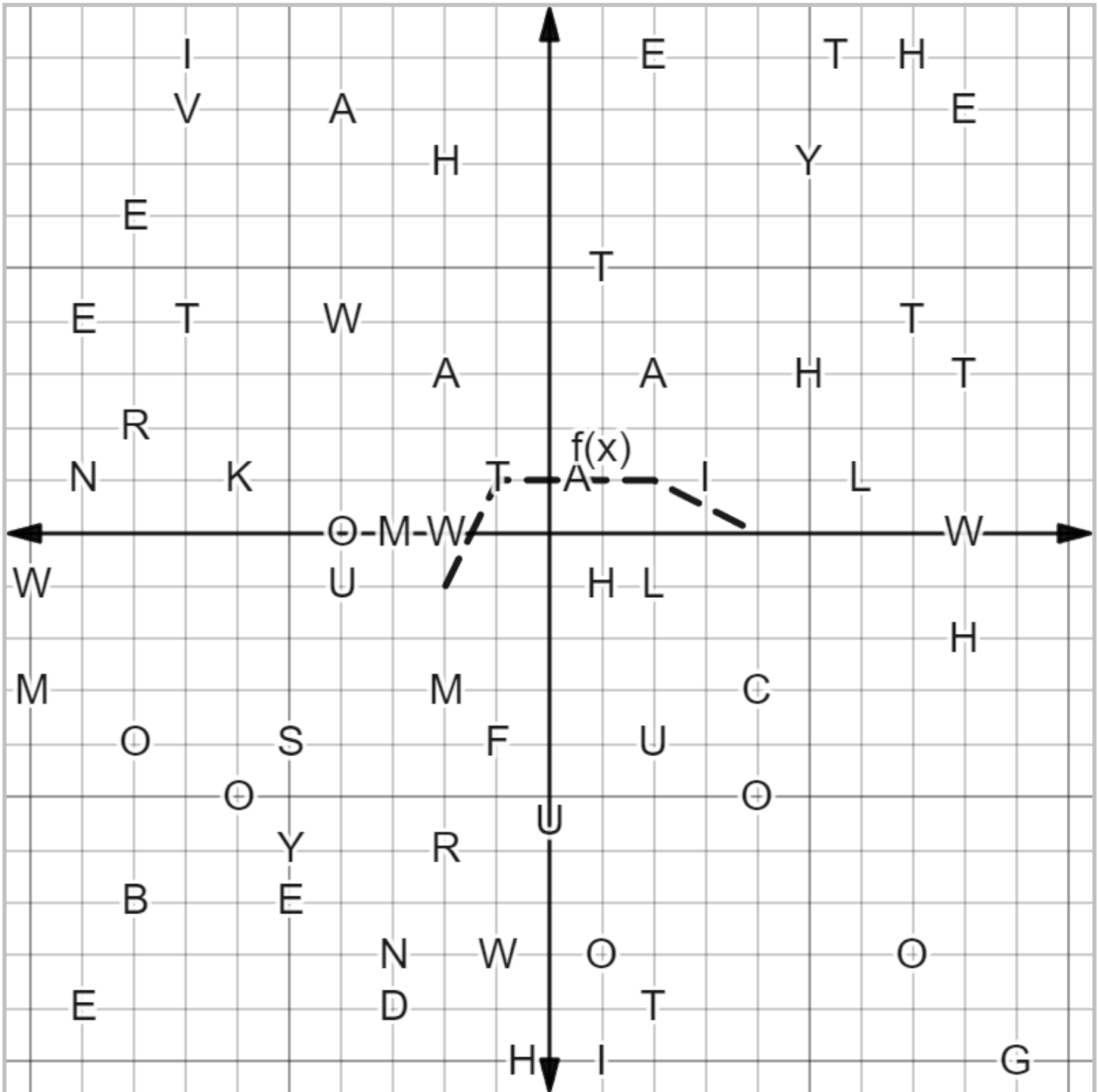
**Blank answer key provided for teacher to complete before using activity with class.**

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© Sarah Carter @mathequalslove

# Transformations Word Search

The function  $f(x)$  is defined by the dashed line on the graph below. The graph of each given transformation of  $f(x)$  will cross through four letters which can be unscrambled to form a common word.



**M + A + T + H = *love***

Transformation	Letters				Word
$f(x + 8)$					
$f(x) - 5$					
$f(x - 4)$					
$f(x + 6) + 7$					
$f(x + 7) - 8$					
$f(x + 6) + 3$					
$-f(x - 3) + 4$					
$-4f(x + 7)$					
$f(-2x)$					
$-f(2x) - 9$					
$-f(\frac{1}{2}x) - 2$					
$-\frac{1}{2}f(x + 4) - 5.5$					
$6f(\frac{1}{3}(x + 4)) + 3$					
$f(2(x - 6)) + 8$					
$f(-\frac{1}{2}(x - 5)) - 9$					

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# Transformations Word Search

**WORD:**

**M + A + T + H = *love***

**A**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(x + 8)$$

**B**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(x) - 5$$

**C**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(x - 4)$$

**D**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(x + 6) + 7$$

**E**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(x + 7) - 8$$

**F**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(x + 6) + 3$$

**G**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$-f(x - 3) + 4$$

**H**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$-4f(x + 7)$$

**I**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(-2x)$$

**J**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$-f(2x) - 9$$

**K**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$-f\left(\frac{1}{2}x\right) - 2$$

**L**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$-\frac{1}{2}f(x + 4) - 5.5$$

**M**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$6f\left(\frac{1}{3}(x + 4)\right) + 3$$

**N**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f(2(x - 6)) + 8$$

**O**

Graph the transformation below. Unscramble the four letters joined by the graph of the transformation to form a common word.

$$f\left(-\frac{1}{2}(x - 5)\right) - 9$$

<b>A</b> $f(x + 8)$	<b>B</b> $f(x) - 5$	<b>C</b> $f(x - 4)$
<b>D</b> $f(x + 6) + 7$	<b>E</b> $f(x + 7) - 8$	<b>F</b> $f(x + 6) + 3$
<b>G</b> $-f(x - 3) + 4$	<b>H</b> $-4f(x + 7)$	<b>I</b> $f(-2x)$
<b>J</b> $-f(2x) - 9$	<b>K</b> $-f(\frac{1}{2}x) - 2$	<b>L</b> $-\frac{1}{2}f(x + 4) - 5.5$
<b>M</b> $6f(\frac{1}{3}(x + 4)) + 3$	<b>N</b> $f(2(x - 6)) + 8$	<b>O</b> $f(-\frac{1}{2}(x - 5)) - 9$



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