

NAME \_\_\_\_\_

#16

DATE \_\_\_\_\_

PERIOD \_\_\_\_\_

**PRE-ALGEBRA  
EVALUATING EXPRESSIONS**

Step I: If  $a = 3$  and  $b = 2$ , evaluate each of the following.

Step II: Put answers to problems in left-hand column in ascending numerical order, beginning at the top of the column. Write the corresponding question number beside each answer.

- |                        |                             |
|------------------------|-----------------------------|
| 1) $2a - a =$ _____    | 2) $5b^2 + b =$ _____       |
| 3) $(a + b)^2 =$ _____ | 4) $a^2 + b^2 =$ _____      |
| 5) $2b^2 =$ _____      | 6) $2a - 3b =$ _____        |
| 7) $ab =$ _____        | 8) $2a^2 - b^0 =$ _____     |
| 9) $2a^2 + a =$ _____  | 10) $a - b =$ _____         |
| 11) $a^2 =$ _____      | 12) $2a + 4b =$ _____       |
| 13) $9b =$ _____       | 14) $b^2 =$ _____           |
| 15) $3b - 2b =$ _____  | 16) $(2a)^2 - 3b^2 =$ _____ |
| 17) $(2b)^2 =$ _____   | 18) $2(a + b) =$ _____      |
| 19) $a + 2b =$ _____   | 20) $a + b =$ _____         |
| 21) $13b - a =$ _____  | 22) $7a - 3b =$ _____       |
| 23) $3a + b =$ _____   | 24) $5(2a - b) =$ _____     |
| 25) $2a + 3b =$ _____  | 26) $7a - b =$ _____        |

- |       |       |   |
|-------|-------|---|
| _____ | _____ | A |
| _____ | _____ | B |
| _____ | _____ | C |
| _____ | _____ | D |
| _____ | _____ | E |
| _____ | _____ | F |
| _____ | _____ | G |
| _____ | _____ | H |
| _____ | _____ | I |
| _____ | 9     | J |
| _____ | 11    | K |
| _____ | _____ | L |
| _____ | _____ | M |
| _____ | _____ | N |
| _____ | _____ | O |
| _____ | _____ | P |
| _____ | _____ | Q |
| _____ | _____ | R |
| _____ | _____ | S |
| _____ | _____ | T |
| _____ | 20    | U |
| _____ | 24    | V |
| _____ | _____ | W |
| _____ | _____ | X |
| _____ | _____ | Y |
| _____ | _____ | Z |

Step III: Decode the mathagram by writing the corresponding letter above each question number.

8 12 10 5 4 13 12 4 15 8 24 13 12 14  
 2 6 13 26 19 14 12 4 23 16 25 6 4  
 2 19 12 14 9 14 8 7 12 26 19 5 13  
 2 12 8 18 1 12 4 14 10 16  
 20 8 5 1 6 16

NAME \_\_\_\_\_

DATE \_\_\_\_\_

CLASS \_\_\_\_\_

TEACHER \_\_\_\_\_

Step I: If  $a = 3$  and  $b = 2$ , evaluate each of the following.

- |  |   |
|--|---|
| ✓1) $2a - a = \underline{a=3}$             | ✓2) $5b^2 + b = \underline{\hspace{2cm}}$       |
| ✓3) $(a + b)^2 = \underline{\hspace{2cm}}$ | ✓4) $a^2 + b^2 = \underline{\hspace{2cm}}$      |
| ✓5) $2b^2 = \underline{\hspace{2cm}}$      | ✓6) $2a - 3b = \underline{\hspace{2cm}}$        |
| ✓7) $ab = \underline{\hspace{2cm}}$        | ✓8) $2a^2 - b^0 = \underline{\hspace{2cm}}$     |
| ✓9) $2a^2 + a = \underline{\hspace{2cm}}$  | ✓10) $a - b = \underline{\hspace{2cm}}$         |
| ✓11) $a^2 = \underline{\hspace{2cm}}$      | ✓12) $2a + 4b = \underline{\hspace{2cm}}$       |
| ✓13) $9b = \underline{\hspace{2cm}}$       | ✓14) $b^2 = \underline{\hspace{2cm}}$           |
| ✓15) $3b - 2b = \underline{\hspace{2cm}}$  | ✓16) $(2a)^2 - 3b^2 = \underline{\hspace{2cm}}$ |
| ✓17) $(2b)^2 = \underline{\hspace{2cm}}$   | ✓18) $2(a + b) = \underline{\hspace{2cm}}$      |
| ✓19) $a + 2b = \underline{\hspace{2cm}}$   | ✓20) $a + b = \underline{\hspace{2cm}}$         |
| ✓21) $13b - a = \underline{\hspace{2cm}}$  | ✓22) $7a - 3b = \underline{\hspace{2cm}}$       |
| ✓23) $3a + b = \underline{\hspace{2cm}}$   | ✓24) $5(2a - b) = \underline{\hspace{2cm}}$     |
| ✓25) $2a + 3b = \underline{\hspace{2cm}}$  | ✓26) $7a - b = \underline{\hspace{2cm}}$        |

Step II: Put answers to problems in left-hand column in ascending numerical order, beginning at the top of the column. Write the corresponding question number beside each answer.

<u>0</u>	<u>6</u>	A
<u>1</u>	<u>10</u>	B
<u>2</u>	<u>5</u>	C
<u>3</u>	<u>1</u>	D
<u>4</u>	<u>14</u>	E
<u>5</u>	<u>20</u>	F
<u>6</u>	<u>7</u>	G
<u>7</u>	<u>19</u>	H
<u>8</u>	<u>5</u>	I
<u>9</u>	<u>11</u>	J
<u>10</u>	<u>18</u>	K
<u>11</u>	<u>23</u>	L
<u>12</u>	<u>25</u>	M
<u>13</u>	<u>4</u>	N
<u>14</u>	<u>12</u>	O
<u>15</u>	<u>22</u>	P
<u>16</u>	<u>17</u>	Q
<u>17</u>	<u>8</u>	R
<u>18</u>	<u>13</u>	S
<u>19</u>	<u>26</u>	T
<u>20</u>	<u>24</u>	U
<u>21</u>	<u>9</u>	V
<u>22</u>	<u>2</u>	W
<u>23</u>	<u>21</u>	X
<u>24</u>	<u>16</u>	Y
<u>25</u>	<u>3</u>	Z

Step III: Decode the mathagram by writing the corresponding letter above each question number.

R O B I N S O N    C R U S O E  
 8 12 10 5 4 13 12 4    15 8 24 13 12 14  
W A S    T H E    O N L Y    M A N  
 2 6 13    26 19 14    12 4 23 16    25 6 4  
W H O    E V E R    G O T    H I S  
 2 19 12    14 9 14 8    7 12 26    19 5 13  
W O R K    D O N E    B V  
 2 12 8 18    1 12 4 14    10 16  
F R I D A Y  
 20 8 5 1 6 16