

Translation Guide

	Words	Phrases	Pictures	Symbols
Addition	<p>Add</p> <p>Plus</p> <p>Sum</p> <p>More</p> <p>Increased</p> <p>Added</p>	<p>Add x and 5</p> <p>x plus 5</p> <p>The sum of x and 5</p> <p>5 more than x</p> <p>x increased by 5</p> <p>5 added to x</p>		$x + 5$
Subtraction	<p>Subtract</p> <p>Minus</p> <p>Less</p> <p>Decreased</p> <p>Subtracted</p> <p>Difference</p>	<p>Subtract 4 from 6</p> <p>6 minus 4</p> <p>4 less than 6</p> <p>6 decreased by 4</p> <p>4 subtracted from 6</p> <p>The difference of 6 and 4</p>		$6 - 4$
Multiplication	<p>Multiply</p> <p>Times</p> <p>Product</p> <p>Twice</p> <p>Doubled</p>	<p>Multiply x and 3</p> <p>3 times x</p> <p>The product of x and 3</p> <p>Twice as much of x</p> <p>The value of x is doubled</p> <p>(Not Shown)</p>		$3x$ $2x$
Division	<p>Divide</p> <p>Divided</p> <p>Quotient</p> <p>Per</p>	<p>Divide x by 3</p> <p>x divided by 3</p> <p>The quotient of x and 3</p> <p><i>Miles per hour</i></p>	<p>The answer to a division problem may be represented as the size of each equal part.</p>	$x \div 3$ or $\frac{x}{3}$ <i>miles</i> \div <i>hours</i> or $\frac{\text{miles}}{\text{hours}}$
Grouping with ()	<p>Quantity</p>	<p>4 times the quantity of x plus 3</p> <p>4 times the sum of x and 3</p> <p>3 times the quantity of x minus 4</p> <p>3 times the difference of x and 4</p> <p>(Picture Not Shown)</p>		$4(x + 3)$ $3(x - 4)$
Equality	<p>Equals</p> <p>Equal</p> <p>Equivalent</p> <p>Same Value As</p>	<p>x equals 4</p> <p>x is equal to 4</p> <p>x is equivalent to 4</p> <p>x has the same value as 4</p>	<p>Equation Mat</p>	$x = 4$



Name _____

Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 1: Guided Practice (We Do)

Materials:

- Algebra Tiles (1 set on p. 14: 20 +1s and 16 +x's per student)
- Expression mat (1 per student)
- Translation Guide

We Do Together: (Teacher Actions)

- Label the operations and special groupings. Then, build and write the algebraic expression using symbols.

<p>1.</p> <p>5 less than 9</p> <p>_____</p>	<p>2.</p> <p>The sum of x and 3</p> <p>_____</p>
<p>3.</p> <p>2 times the quantity of 4 plus x</p> <p>_____</p>	<p>4.</p> <p>The difference of 5 and 2</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 1: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, build and write each algebraic expression using symbols.

<p>5.</p> <p>5 more than x</p> <p>_____</p>	<p>6.</p> <p>The difference of 7 and 3</p> <p>_____</p>
<p>7.</p> <p>3 times the quantity of x plus 2</p> <p>_____</p>	<p>8.</p> <p>The product of x and 4</p> <p>_____</p>
<p>9.</p> <p>2 times the quantity of 1 plus x</p> <p>_____</p>	<p>10.</p> <p>4 less than the quantity of 2 times x</p> <p>_____</p>



Quick Check - Form A

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The sum of x and 6, times 4</p> <p>_____</p>	<p>2.</p> <p>7 more than the product of 6 and x</p> <p>_____</p>
<p>3.</p> <p>9 less than 4 times x</p> <p>_____</p>	<p>4.</p> <p>The quotient of x and 10, plus 2</p> <p>_____</p>
<p>5.</p> <p>3 times the quantity of x plus 5</p> <p>_____</p>	<p>6.</p> <p>The product of 5 and x, minus 9</p> <p>_____</p>

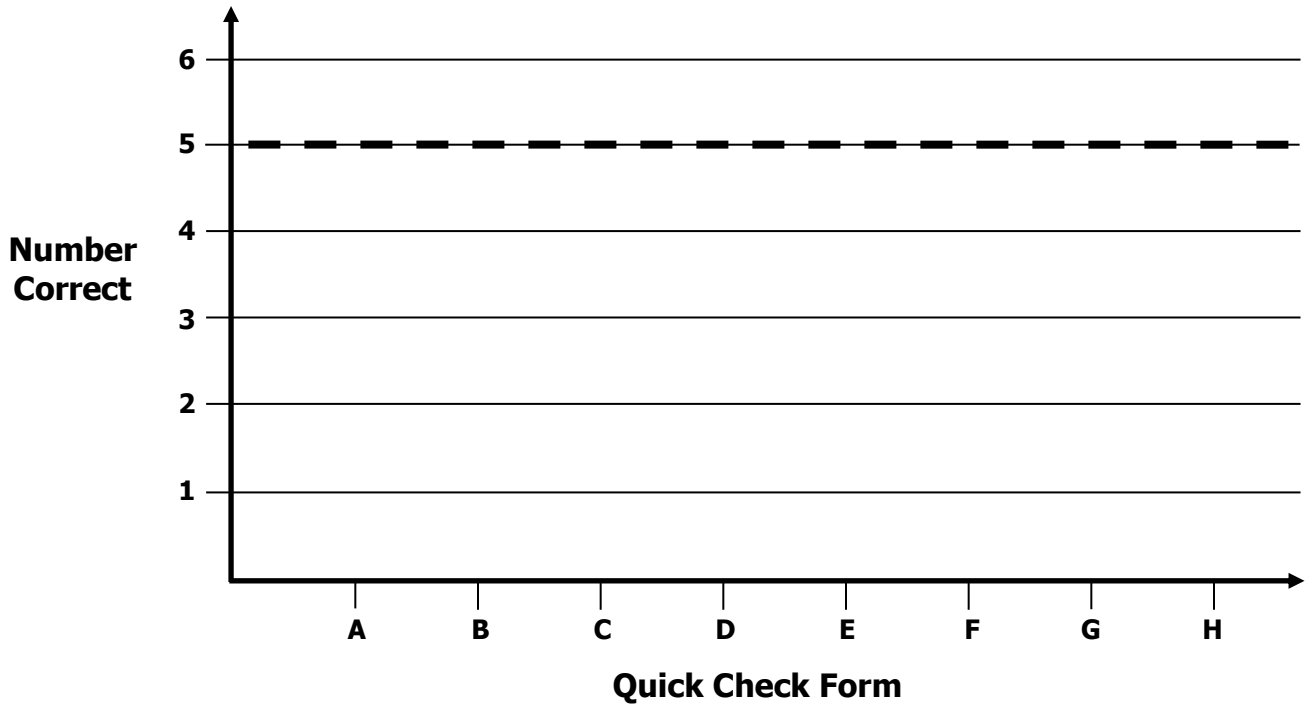


Growth Chart

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Goal: 5 out of 6 correct



Intervention	Date	Score
Session 1:		
Session 2:		
Session 3:		
Session 4:		
Session 5:		
Session 6:		
Session 7:		
Session 8:		



Name _____

Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 2: Guided Practice (We Do)

Materials:

- Algebra Tiles (1 set on p. 14: 20 +1s and 16 + x 's per student)
- Expression mat (1 per student)
- Translation Guide (See Session 1)

We Do Together: (Teacher Actions)

- Label the operations and special groupings. Then, build and write the algebraic expression using symbols.

<p>1.</p> <p>5 more than 3</p> <p>_____</p>	<p>2.</p> <p>The sum of x and 4</p> <p>_____</p>
<p>3.</p> <p>2 times the quantity of 3 plus x</p> <p>_____</p>	<p>4.</p> <p>The difference of 7 and 2</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 2: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, build and write each algebraic expression using symbols.

<p>5.</p> <p>4 more than x</p> <p>_____</p>	<p>6.</p> <p>The difference of 5 and 3</p> <p>_____</p>
<p>7.</p> <p>3 times the quantity of x plus 1</p> <p>_____</p>	<p>8.</p> <p>The product of x and 4</p> <p>_____</p>
<p>9.</p> <p>2 times the quantity of 3 plus x</p> <p>_____</p>	<p>10.</p> <p>5 less than the quantity of 2 times x</p> <p>_____</p>



Quick Check - Form B

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The product of x and 2, plus 4</p> <p>_____</p>	<p>2.</p> <p>The sum of x and 2, increased by 5</p> <p>_____</p>
<p>3.</p> <p>7 less than twice x</p> <p>_____</p>	<p>4.</p> <p>9 increased by the sum of x and 6</p> <p>_____</p>
<p>5.</p> <p>7 times the quantity of 4 minus x</p> <p>_____</p>	<p>6.</p> <p>The quotient of 5 and x, plus 9</p> <p>_____</p>



Name _____

Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 3: Guided Practice (We Do)

Materials:

- Translation Guide

We Do Together: (Teacher Actions)

- Label the operations and special groupings. Then, draw and write the algebraic expression using symbols.

<p>1. The sum of x and 3, times 2</p> <p>_____</p>	<p>2. 4 more than the product of 5 and x</p> <p>_____</p>
<p>3. The difference of 5 and 2</p> <p>_____</p>	<p>4. The quotient of $2x$ and 3</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 3: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, draw and write each algebraic expression using symbols.

<p>5. 2 times the quantity of x plus 4</p> <p>_____</p>	<p>6. The difference of x and 3, increased by 2</p> <p>_____</p>
<p>7. The product of 3 and x</p> <p>_____</p>	<p>8. 3 more than twice x</p> <p>_____</p>
<p>9. 2 times the difference of 5 and 3</p> <p>_____</p>	<p>10. The quotient of x and 4</p> <p>_____</p>



Quick Check - Form C

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The difference of x and 9, times 4</p> <p>_____</p>	<p>2.</p> <p>6 more than the product of 10 and x</p> <p>_____</p>
<p>3.</p> <p>9 less than x times 4</p> <p>_____</p>	<p>4.</p> <p>The sum of x and 2, divided by 4</p> <p>_____</p>
<p>5.</p> <p>6 times the quantity of 2 plus x</p> <p>_____</p>	<p>6.</p> <p>The quotient of 5 and x, minus 9</p> <p>_____</p>



Name _____

Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 4: Guided Practice (We Do)

Materials:

- Translation Guide

We Do Together: (Teacher Actions)

- Label the operations and special groupings. Then, draw and write the algebraic expression using symbols.

<p>1.</p> <p>The difference of 7 and 3</p> <p>_____</p>	<p>2.</p> <p>4 more than the quotient of x and 2</p> <p>_____</p>
<p>3.</p> <p>3 more than twice x</p> <p>_____</p>	<p>4.</p> <p>The product of $2x$ and 3</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 4: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, draw and write each algebraic expression using symbols.

<p>5.</p> <p>2 times the quantity of x plus 4</p> <p>_____</p>	<p>6.</p> <p>The quotient of x and 3, increased by 2</p> <p>_____</p>
<p>7.</p> <p>The sum of 3 and x</p> <p>_____</p>	<p>8.</p> <p>3 more than twice x</p> <p>_____</p>
<p>9.</p> <p>The difference of 5 and 1</p> <p>_____</p>	<p>10.</p> <p>The product of x and 4</p> <p>_____</p>



Quick Check - Form D

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The sum of x and 3, divided by 4</p> <p>_____</p>	<p>2.</p> <p>The product of 4 and x, plus 7</p> <p>_____</p>
<p>3.</p> <p>10 less than 8 times x</p> <p>_____</p>	<p>4.</p> <p>The quotient of x and 4, minus 2</p> <p>_____</p>
<p>5.</p> <p>8 times the quantity of 4 plus x</p> <p>_____</p>	<p>6.</p> <p>The difference of 5 and x, times 9</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 5: Guided Practice (We Do)

Materials:

- Translation Guide

We Do Together: (Teacher Actions)

- Label the operations and special groupings. Then, draw and write the algebraic expression using symbols.

<p>1.</p> <p>The sum of x and 4, times 3</p> <p>_____</p>	<p>2.</p> <p>2 more than the product of 7 and x</p> <p>_____</p>
<p>3.</p> <p>5 more than twice x</p> <p>_____</p>	<p>4.</p> <p>The quotient of $4x$ and 2</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 5: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, draw and write each algebraic expression using symbols.

<p>5. 5 times the quantity of x plus 3</p> <p>_____</p>	<p>6. The sum of x and 4, increased by 1</p> <p>_____</p>
<p>7. The quotient of x and 3</p> <p>_____</p>	<p>8. 8 more than twice x</p> <p>_____</p>
<p>9. The difference of 7 and 2</p> <p>_____</p>	<p>10. The product of x and 4</p> <p>_____</p>



Quick Check - Form E

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The sum of x and 6, times 4</p> <p>_____</p>	<p>2.</p> <p>7 more than the product of 6 and x</p> <p>_____</p>
<p>3.</p> <p>9 less than 4 times x</p> <p>_____</p>	<p>4.</p> <p>The quotient of x and 10, plus 2</p> <p>_____</p>
<p>5.</p> <p>3 times the quantity of x plus 5</p> <p>_____</p>	<p>6.</p> <p>The product of 5 and x, minus 9</p> <p>_____</p>



Name _____

Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 6: Guided Practice (We Do)

Materials:

- Translation Guide

We Do Together: (Teacher Actions)

- Say the algebraic expression, label the operations and special groupings. Then write it using symbols.

<p>1.</p> <p>The sum of x and 5, times 3</p> <p>_____</p>	<p>2.</p> <p>3 more than the product of 8 and x</p> <p>_____</p>
<p>3.</p> <p>7 less than twice x</p> <p>_____</p>	<p>4.</p> <p>The quotient of $4x$ and 9</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 6: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, label and write each algebraic expression using symbols.

<p>5. 2 times the quantity of x minus 4</p> <p>_____</p>	<p>6. The difference of x and 3, divided by 2</p> <p>_____</p>
<p>7. The quotient of 5 and x</p> <p>_____</p>	<p>8. 7 more than twice x</p> <p>_____</p>
<p>9. 7 times the difference of 10 and x</p> <p>_____</p>	<p>10. The product of x and 4</p> <p>_____</p>



Quick Check - Form F

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The product of x and 2, plus 4</p> <p>_____</p>	<p>2.</p> <p>The sum of x and 2, increased by 5</p> <p>_____</p>
<p>3.</p> <p>7 less than twice x</p> <p>_____</p>	<p>4.</p> <p>9 increased by the sum of x and 6</p> <p>_____</p>
<p>5.</p> <p>7 times the quantity of 4 minus x</p> <p>_____</p>	<p>6.</p> <p>The quotient of 5 and x, plus 9</p> <p>_____</p>



Name _____

Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 7: Guided Practice (We Do)

Materials:

- Translation Guide

We Do Together: (Teacher Actions)

- Say the algebraic expression, label the operations and special groupings. Then write it using symbols.

<p>1. The sum of x and 2, times 6</p> <p>_____</p>	<p>2. 7 more than the product of 3 and x</p> <p>_____</p>
<p>3. 5 less than twice x</p> <p>_____</p>	<p>4. The quotient of $6x$ and 8</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 7: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, label and write each algebraic expression using symbols.

<p>5. 3 times the quantity of x minus 5</p> <p>_____</p>	<p>6. The difference of x and 2, divided by 9</p> <p>_____</p>
<p>7. The quotient of 7 and x</p> <p>_____</p>	<p>8. 4 more than twice x</p> <p>_____</p>
<p>9. 2 times the difference of 3 and x</p> <p>_____</p>	<p>10. The product of x and 3</p> <p>_____</p>



Quick Check - Form G

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The difference of x and 9, times 4</p> <p>_____</p>	<p>2.</p> <p>6 more than the product of 10 and x</p> <p>_____</p>
<p>3.</p> <p>9 less than x times 4</p> <p>_____</p>	<p>4.</p> <p>The sum of x and 2, divided by 4</p> <p>_____</p>
<p>5.</p> <p>6 times the quantity of 2 plus x</p> <p>_____</p>	<p>6.</p> <p>The quotient of 5 and x, minus 9</p> <p>_____</p>



Name _____

Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 8: Guided Practice (We Do)

Materials:

- Translation Guide

We Do Together: (Teacher Actions)

- Say the algebraic expression, label the operations and special groupings. Then write it using symbols.

<p>1. The difference of x and 5, times 3</p> <p>_____</p>	<p>2. 3 more than the quotient of 8 and x</p> <p>_____</p>
<p>3. 7 more than twice x</p> <p>_____</p>	<p>4. The product of $4x$ and 9</p> <p>_____</p>



Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols

Session 8: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to say, label and write each algebraic expression using symbols.

<p>5. 2 times the quantity of x plus 4</p> <p>_____</p>	<p>6. The difference of x and 4, divided by 2</p> <p>_____</p>
<p>7. The quotient of 7 and x</p> <p>_____</p>	<p>8. 7 less than twice x</p> <p>_____</p>
<p>9. 7 times the difference of 3 and x</p> <p>_____</p>	<p>10. The product of x and 5</p> <p>_____</p>



Quick Check - Form H

Name _____ Date _____

Learning Target: I will translate algebraic expressions between words and symbols.

Directions: Write the expression that represents each phrase. (Work time: 4 minutes)

<p>1.</p> <p>The sum of x and 3, divided by 4</p> <p>_____</p>	<p>2.</p> <p>The product of 4 and x, plus 7</p> <p>_____</p>
<p>3.</p> <p>10 less than 8 times x</p> <p>_____</p>	<p>4.</p> <p>The quotient of x and 4, minus 2</p> <p>_____</p>
<p>5.</p> <p>8 times the quantity of 4 plus x</p> <p>_____</p>	<p>6.</p> <p>The difference of 5 and x, times 9</p> <p>_____</p>